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A SURVEY OF ENTRY LEVEL SKILLS OF THE HEALTH RECORD ADMINISTRATOR AND THE HEALTH RECORD TECHNICIAN

by

© UNA MARIA KOLBER

A THESIS

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The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "A Survey of Entry Level Skills of the Heath Record Administrator and the Health Record Technician" submitted by Una Maria Kolber in partial fulfilment of the requirements for the degree of Master of Education.

James M. Small

A K Deane

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Date April 12, 1983

ABSTRACT

The purpose of this study was to identify, analyze and relate to training experiences those competencies perceived to be used by Health Record Administrators who graduated from Health Record Technology at the Northern Alberta Institute of Technology and by Health Record Technicians who graduated from Health Record Technology at the Southern Alberta Institute of Technology.

Data for the study were gathered in three phases. The first phase used the DACUM process for the collection of data. The second phase validated competencies and competency areas described by the DACUM process and the third phase utilized a questionnaire mailed to all members of the A.H.R.A.

Findings of this study indicated that (1) 233 competencies were required for H.R.A. and 116 competencies were required for H.R.T. The total of 339 competencies were arranged in 16 competency areas. (2) graduates of both H.R.A. and H.R.T. programs obtained their first position in a hospital. (3) each group described their first position as mainly technical/clerical and managerial. (4) graduates of both programs described their first position by status, as being a Department Head position, followed by the next most common type being staff practitioner. (5) both groups described their current

position as "Other", followed next by Department Head. (6) both groups agreed that they were able to cope in all or most areas of their first job. (7) most respondents perceived their teaching program provided a good basis for further technical expertise and likewise, a good basis for advancement. (8) H.R.A.s preferred to acquire an initial understanding of the competency areas in the classroom, but preferred to acquire the ability to perform either during the practicum component of their training program, or on-the-job. (9) H.R.T.s preferred to acquire an initial understanding of the competency areas in the classroom, followed by on-the-job. They preferred to acquire an ability to perform all competency areas, on-the-job. (10) generally H.R.A.s and H.R.T.s did not agree upon the actual locus of understanding, however, agreed upon the classroom as being the preferred locus of understanding. (11) only in six competency areas did both groups agree upon the actual and the preferred locus of learning as being on-the-job.

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CHAPTER I

INTRODUCTION TO THE STUDY

The Competency Movement in Education

Many segments of society have expressed increasing dissatisfaction with the limited results that educational systems seem to achieve. Grant, (1979:19) offers an immediately plausible explanation for this concern over competency in professional work.

> Levels of competency once thought at least tolerable for a society moving at a slower pace, are quite inadequate for a society whose internal management is growing steadily more complicated. Today, in fact, a belief in one's own competency is no longer enough, and a demand for demonstrated competency now motivates much of education.

This general criticism of educational institutions has led to the critical examination of their modus operandi. Teachers, administrators and teaching institutions are interested in evaluating what they are and are not accomplishing. There is an increased interest in providing more information about what it is that students will be able to do when they successfully complete a course of instruction. Many educators believe that one way to approach these problems is through the development of better objective measurement procedures. It is assumed that the precise measurement of an attribute or skill will contribute useful information concerning the techniques

used in facilitating the development of that attribute or skill.

These factors have come together to give impetus to the competency-based education movement. Monjan (1979) suggests the hallmark of competency-based education is a commitment to the definition of all goals in terms of explicit behavioral descriptions of what a person is able to do once an educational activity has been mastered. Initially, competency-based education was associated with vocational and technical programs; currently, competency-based education is an umbrella term for many diverse educational endeavours.

The main aspects of the competency-based movement, include behavioral specification of both the educational objectives and the evaluative procedures for all learning activities. This specification is achieved through the use of precisely-defined performance objectives. All educational offerings and activities are designed to promote student achievement of these performance objectives, and when a student has successfully attained a performance objective, he is considered to have developed a competency in that area. A performance objective states what the specific actions are that a student will be able to perform who has satisfactorily mastered a learning activity. Contained within such a statement is information about:

1. What observable behaviors will demonstrate to someone else that the learning activity has been mastered.

2. The standards of performance necessary if the demonstration is to be judged as indicating mastery of the learning activity.

> Given that performance objectives have the power to keep educational activities tied to their underlying educational purposes, they seem to be the ultimate educational tool. (Monjam:1979)

Health Record Administration

Between 1955 and 1969 the training of health record personnel in Alberta was provided in an approved hospital school. Training was by didactic methods and practical experience in a medical record department. The graduates of the hospital based school, formerly at the Edmonton General Hospital, received the designation--Medical Record Librarian. After successfully passing a national registration examination, set by the Canadian Medical Record Association, at the end of the twelve month program, they received the designation--Registered Record Librarian. The only hospital training program in Alberta for Medical Record Librarians closed in 1969. In 1970, the designation--Medical Record Librarían was changed by the Canadian Medical Record Association to the designation--Health Record Administrator (H.R.A.).

The Dictionary of Occupational Titles (1965) lists the duties and responsibilities of a H.R.A. thus:

> Compile and maintain medical records and statistics of hospital and clinic patients. Review clinical records for completeness and contact medical personnel to obtain missing data. Code, index and file records of diagnoses, diseases and treatments. Compile statistics, such as, reports on admissions, births, deaths, transfers and discharges. Release medical information to staff and authorized government agencies, insurance companies, physicians, hospitals and medical information and research centres. May brief and transcribe records. May testify in court to authenticate medical records.

A support role to the H.R.A. is provided by the Health Record Technician (H.R.T.).

The Health Manpower Provincial Report, (1978) lists the duties and responsibilities of a Health Record Technician thus:

> Assists Health Record Administrators in carrying out many technical activities within the medical record department, typing medical information, preparing statistical reports, reviewing medical records, supervising clerical personnel, working with doctors, nurses and other health professionals on medical research projects.

New research and technology have increased the complexity of all fields of endeavour. Today it is almost impossible for a prospective employee in most fields to obtain all the training he needs from on-the-job experience alone. As a result, industry, business and the professions, have turned to educational institutions to provide that training. (Centre for Continuing Education, U.B.C.: 1975)

In 1967, in anticipation of the closure of the Edmonton General Hospital School for Medical Record Librarians, a training program for Health Record Administrators was introduced at the Northern Alberta Institute of Technology (N.A.I.T.). A training program for Health Record Technicians commenced at the Southern Alberta Institute of Technology (S.A.I.T.) in the same year.

In 1977 there were 41 programs in Health Record Administration approved by the Council of Medical Education of the American Medical Record Association (A.M.R.A.). In 1980, in Canada there were seven programs approved by the Canadian College of Health Record Administrators (C.C.H.R.A.). Graduates of approved schools of Health Record Administration are eligible for the national registration examination given by the A.M.R.A. or by the C.C.H.R.A. Passing this examination gives professional recognition as a Registered Record Administrator (R.R.A.) in the United States, or as a Health Record Administrator (H.R.A.) in Canada. Several career references are cited:

The Careers Encyclopedia, (1975) describes this as a "developing field."

The Encyclopedia of Careers and Vocational Guidance, (1978) states:

> Employment opportunities for qualified medical record librarians during the 1980's are expected to be excellent. A shortage of trained librarians has long existed through the country, and although more individuals have enrolled in the required training program, new graduates cannot fill the expanding needs.

The Occupational Outlook Handbook, (1978) states:

> Employment opportunities for graduates of approved medical record administrator programs are expected to be good through the mid 1980's. Employment is expected to grow faster than the average for all occupations, with the increasing use of health facilities as more and more people are covered by health insurance.

Need for Further Research

Despite the growing importance of this occupation, a review of the standard indices that report the results of educational research indicated a dearth of research on health record administration. McClurg (1978) provided an analysis of a survey of competency characteristics of 17 occupational groups including Accredited Records Technicians.

McClurg noted that a repetition of this study, concentrating on the graduates of two year colleges and vocational/technical institutes, is needed.

> That type of effort would clarify the competency development resulting from formal education programs and would eliminate the impact of on-the-job trained persons and those who entered an occupation as a cross-over from other program preparation.

He further noted, "that specific research should be conducted to more completely define the competencies within given occupations."

Definition of Terms

The following definitions are intended to clarify some of the terms used in this study.

Competence. The state of being fit or capable.

Competency (skill). For the purpose of this study, competency and skill are synonymous terms referring to the ability to perform a particular activity.

Competency area (skill area). Natural clusterings of skills relating to a particular function.

Curriculum. A plan or design for the educational program of a school or a system of schools. It should be stated in a written document and made available to teachers and patrons of a school. (Beauchamp, 1968:224)

Understanding. A capacity to comprehend the nature, significance or explanation of a concept, whether or not the skill to perform that activity has been developed. (McClurg, 1978:66)

Instructor. A person employed to instruct in Health Record Administration in either an institute of technology or a hospital and who holds a valid certificate or registration from the Canadian College of Health Record Administrators. (C.C.H.R.A.)

Health Record Technician. A person who is employed in a general hospital as a record technician and who holds a valid certificate or registration from the C.C.H.R.A. A synonymous term is accredited records technician.

Health Record Administrator. A person who is employed in a general hospital as a manager of a medical records department and who holds a valid certificate from the C.C.H.R.A. A synonymous term is: medical record librarian.

Health Record Practitioner. The term may refer to either a Health Record Administrator or to a Health Record Technician, or one who regularly practices in the field of health records.

Purpose of the Study

The purpose of this study was to identify those competencies perceived to be used by Health Record Administrators and Health Record Technicians.

In order to achieve the purpose of this study, answers were sought to the following research questions:

1. What demographic and professional descriptions characterize Health Record Administrators and Health Record Technicians in Alberta?

2. How do the perceptions of competencies held by and for Health Record Technicians, differ from those held by and for Health Record Administrators?

3. What is perceived by Health Record Administrators and by Health Record Technicians as the actual and the preferred locus of learning for each competency area? (training program, on-the-job, or elsewhere)

4. For each program (HRA and HRT) what differences in perceptions of actual and preferred locus of learning exist for each competency area?

5. What perceptions relevant to the training program are held by Health Record Administrators and Health Record Technicians?

Significance of the Study

At the present time, the competencies actually needed by health record practitioners are not known. The results of this study might provide such a list of competencies and competency areas that may be used for research purposes, program development and to help employers make effective use of health record practitioners.

Programs in Health Record Administration are offered in both post-secondary technical institutions and colleges in North America. It is possible that this study may be adapted to curriculum development and program design.

Delimitations

The population of this research included all those persons who were registered with the (A.H.R.A.), currently employed in Alberta as a health record practitioner and who have current status as a Health Record Administrator or Health Record Technician with the C.C.H.R.A.

Limitations

1. Mobility, unknown addresses and other reasons resulted in an inability to reach all intended respondents.

2. The respondents' interpretations of the wording of the questionnaire may not have reflected the intentions of the researcher.

3. The researcher's interpretations of the responses to open-ended questions may not have reflected the intent of the respondents.

4. The study was limited by the questions that were included on the research instrument and by the characteristics identified in this research.

5. Conclusions and implications resulting from the study were based upon information gathered at one particular moment in time, and thus were not necessarily indicative of the past or the future.

Overview

The first chapter of this report includes an introduction to the research. It also includes: operational definitions, objectives of the study, significance of the study, approach to the study, and delimitations and limitations.

The second chapter presents an historical overview of health record practitioners. It also includes a review of related literature and the findings of related research

studies that have a direct or tangential implication for this study.

The third chapter presents a description and a discussion of the instruments used to collect data for analysis and the methodology employed to bring the study to its conclusions.

The fourth chapter presents a statistical analysis and interpretation of the results.

The fifth chapter presents a discussion of competencies required of health record practitioners, practitioners' perceptions of differences between programs, differences within programs, a summary of the findings and observations.

The sixth chapter summarizes the research study, the conclusions derived from the study and recommendations that were generated from the data collection and subsequent data analysis.

CHAPTER II

RELATED LITERATURE

The literature reviewed for this study is limited to three areas: the competence-based education movement, the DACUM approach to the development of curricula and a history of medical records.

COMPETENCE-BASED EDUCATION

Overview

Grant (1971) surveys competence-based reforms in higher education. The competence-based movement has a variety of antecedents in earlier movements, including those for efficiency in education, vocational education, progressive education and instructional technology. Advocates of competence-based education (C.B.E.) generally contend that it is both cost- and time-efficient. The competence-based programs at Florida State University were precipitated directly in response to a mandate from the state legislature for a time-shortened degree.

Certain basic features of progressive education and the philosophical work of John Dewey (1966), are present in C.B.E. An emphasis on learning by doing, a recognition that education takes place outside, as well as within the classroom, efforts to make educational experience as realistic as possible, attempts to involve members of the

community, and a concept of designing education to prepare for life roles, can all be found in today's competence-based programs.

The experiences of two world wars have also left indelible marks on the competence-based programs as well as on American education in general. The tendency of these programs to stress mastery learning and to incorporate performance tests as assessment and learning instruments may be seen as the result of wartime education and training experiences. The contingencies of wartime learning did not allow for partial learning. It was important that students learned quickly, but it was absolutely essential that they learned completely. The only truly reliable means for determining whether students had mastered their assignments were performance tests.

Ideas from developmental psychology have explained the internal drive for competence. The orthodox Freudian psychoanalytic theory saw the child as struggling to cope with internal libidinal demands, intensified by family interaction; the work of Jean Piaget, emphasized the desire of young people to learn, to explore, to master their world; to become competent. The semi-Freudian ideas about stages of growth by Eric Erikson, the writings of Jacob W. Getzels and the research of Robert W. White (1959), have contributed to the sense of the development of youngsters as a search for competence.

The key feature of C.B.E. is the tendency to develop a curriculum from an analysis of roles to be filled on completion of the educational program. Two broadly divergent approaches to curriculum design, seem particularly worthy of examination here as both provide historical and theoretical bases for current experiments. One is behavioristic or functional, defining roles and building curriculums in terms of highly refined, specifically stated skills or functions. The second is more humanistic, viewing life roles from a holistic perspective and building curriculums that incorporate elements of culture, personality and citizenship.

Behavioral and Functional Antecedents

The search for antecedents of contemporary educational and training programs that are based on an analysis of a specific behavior or functions to be performed within certain roles, leads back to the first decades of this century, to the principles of scientific management and job analysis. (Taylor, 1947)

Taylor's development of the concept of job analysis would prove to be useful for the selection and placement of workers. Also important, were its implications for the training of employees. Although Taylor saw the potential value of using job analysis to structure the training program of employees, he did not develop this relationship to any degree.

The entry of America into the First World War and the resulting demands imposed upon educators to train competent tradesmen and technicians provided the impetus for the further development of Taylor's work in the direction of coordinating job analyses and education. The efforts of the Committee on Classification of Personnel, the Committee on Education and Special Training, and the United States Shipping Board reflect the influence of Taylor's ideas. There is an extension of these ideas into educational programs that derive their curriculum from an analysis of roles to be performed and that certify student achievement in the basis of demonstrated performance in a relatively time-free context.

The 1920's were the heyday of job analysis and curriculum construction. Although a major part of the work continued to be in industrial-trade and vocational areas, important efforts were made to adopt the procedure for professional education and more traditional academic subjects.

Interest in job analysis and curriculum construction began to decline in the 1930's as the influence of progressive education became more wide spread and reached college curriculum-makers. The major features of the First World War training programs had, by the 1930's, become firmly established principles of vocational/industrial training.

Both the military training programs and recent developments in experimental psychology have exerted a strong influence on the design of many current educational programs and especially upon C.B.E. However, not all educators adhere to the behavioristic-functionalistic approach. There are educators including some involved in the design of C.B.E. programs, who reject this highly particularized view of education. They would call these programs, "training" and not education. The distinction being made here between training and education rests upon the degree of specificity with which program objectives are described. Glaser (1962:4) notes:

> If the end products of the learning process can be rather precisely specified, as, for example, learning to use a slide rule, then it can be said that the student is being trained to use a slide rule. On the other hand, if the behavioral end-products are complex and present knowledge of the behavior makes them difficult to specify, then the individual is educated by providing a foundation of behavior which represents approximations to the behavior it is wished that the student will eventually perform, for example, being a creative scientist.

Within Glaser's statement lies the essence of the contrast between behavioristic and humanistic perspectives on C.B.E.

The Humanistic Approach

Perhaps the most articulate challenge to the strictly behavioristic and functional approach to education can be found in the work of John Dewey.(1915) According to

Dewey, the dominant vocation of all human beings at all times is living, that is, intellectual and moral growth.

Dewey dismisses the narrow, task-specific curriculum as injurious to both the individual and society. A lack of breadth in educational experiences inhibits individual development and restricts the possibility for growth. Equally condemning of the job-specific curriculum is Dewey's sense that it is essentially undemocratic. It deprives students of the social meaning of the careers for which they are preparing and does not equip them to be critical or independent of the occupational roles placed upon them.

The ideal curricula, designed by Dewey to prepare students for a specific occupation, would be broad. This broader perspective can be found in the later works on task analysis and curriculum construction. B. Lamar Johnson noted that the

> . . . curriculum was conceived broadly for it includes the sum total of the students' college experience, in the classroom and in the library, in the dormitory and on the athletic field, in the laboratory and in the sorority room. (1939:128)

The curriculum developed at this time by Stephens, at Rollins College, demonstrates a blend of the behavioristic and functional and the humanistic schools of thought. In 1932, a document submitted for inclusion in the year book of the National Society for the Study of Education, describes the essential features of the new Rollins curriculum, and states "the student is no longer held back

by the lock-step system of mass education. He can go ahead as far and as fast as his ability will allow" (Holt, 1930:372). The objective of the new curriculum was simply stated as the "hope" that the student would be "better prepared to meet conditions prevailing outside the college." While the Rollins plan showed several features of behavioristic C.B.E. programs, it differed in one crucial aspect; it was based upon a very broad curricular objective, namely, to prepare students to meet conditions outside the college.

DEVELOPING A CURRICULUM

Historical Development

"DACUM is a new approach to the development of curricula combined with a new evaluation process for occupational training programs" (Adams, 1975:23). Initially it was created in a joint effort by the Technical Vocational Training Branch, Department of Labour (later titled Experimental Projects Branch, Canada Department of Manpower and Immigration), and General Learning Corporation of New York, which provided technical direction to the Women's Job Corporation program at Clinton, Iowa. Early efforts at Clinton were intended to produce a curriculum guide that would enhance trainee involvement in the training program and in planning for goal attainment. The result was a graphic presentation of the curriculum, similar to a time bar chart, which was referred to as a "DACUM".

Following these early efforts at Clinton, an experimental DACUM for a typical occupation was developed in Canada as a model for further application. It was introduced to the Nova Scotia New Start Corporation in 1968 because of a number of circumstances that demanded a new approach to curriculum development. These circumstances required Nova Scotia New Start Corporation to respond quickly to the needs of disadvantaged adults. This, in

turn, created a need for immediate action in planning a training program and defining it in curricular form. There was also a need for immediate action in determining a method of evaluating competencies in the training program.

It was felt that most conventional resources and methodology used in occupational training programs would probably not work within the New Start framework. Occupations for New Start training programs were essentially selected from among those for which there was currently no formal training available. Therefore, each occupation required a completely new program.

The DACUM, after extensive modification and refinement for the Corporation, seemed to provide a solution to the problem. It was applied to a series of programs, with each program posing further problems or adding new dimensions. Out of the original intentions and resulting developmental work evolved a new approach to occupational training in general.[1] The DACUM approach has since been adapted and installed with some modification in various community colleges and schools.

DACUM as a Process and a Product

Adams, (1974:24) has defined DACUM as a "single-sheet profile that serves as both a curriculum plan and an

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[1] The literature in Alberta is particularly rich with studies summarizing curricula development for occupational training programs.

evaluation instrument for occupational training programs." Sinnett, (1974:1) describes DACUM, "to be both a process and a product."

DACUM as a Process: This is a dynamic group process for a particular job or subject area. The group process, under the leadership of a competent co-ordinator, produces the range of competencies found in the graphic DACUM chart. "The DACUM process begins when a need is identified for a new training program or for the revision of an out-dated one" (Centre for Continuing Education, U.B.C., 1975:4). Once the decision is made to put together a new curriculum, a job analysis is undertaken.

The job analysis specifies exactly which competencies are required on the job and what the student, or prospective employee, must learn to do. This analysis is carried out in a workshop setting and results in a DACUM chart; a graphic representation of the occupation as it is currently practiced. The workshop includes from ten to fifteen participants and lasts from one to three days. The majority of individuals chosen to participate are people currently working in the occupation. They have the most accurate perception of the job. Ideally, these practitioners will be selected to represent a variety of work situations and range of responsibilities.

DACUM as a Product: It is one or two sheets of paper showing competency areas for a particular job which can serve as a curriculum outline or plan. This graphic outline presents small blocks, each containing a short behavioral or action-oriented definition, which make up a complete picture of the required competencies in each competency area. This then represents a profile of a particular field of human endeavour.

The DACUM chart becomes a diploma or record of competencies in the occupation. The chart also serves as a record keeping system. All competencies achieved by a student are recorded directly on a copy of the DACUM chart maintained for each individual. The chart also has potential application as a guidance tool prior to entry to a training program and as a placement tool upon completion of a training program.[2]

Program Development

Program development is commenced after the DACUM chart is developed. Subject headings may be taken directly from the competency areas identified on the chart. Each identified competency is then assessed with appropriate work-oriented activities through which the student can gain understanding of the competency. It should be pointed out

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[2] For an example of a DACUM chart see Appendix A which contains a sample chart used as a model for this part of this research process.

that the chart is applied competency by competency to developing the program.

One of the unexpected benefits of adopting the DACUM approach, at least in the eyes of program designers and installers, was the increased input from employers in the occupation. This was particularly important in designing programs which attempt to match a limited number of prospective trainees with a limited number of job openings in a local community.

The presentation of the DACUM chart makes employer observations and contributions more realistic. They discuss the competencies needed by their workers and the extent of the competency areas required for various jobs.

In addition, the prospect of having to serve on a chart development committee and participate in a program generates commitment from the employers which, in turn, improves the quality of information provided.

> Some are restrained in their enthusiasm for placing demands on someone else to provide training service to them. Others are motivated by the prospect of achieving what they formerly believed to be an impossible goal. (Adams, 1975:126)

Current State of DACUM Development

An expansion and clarification of DACUM is needed at this time because there is a variety of processes and products emerging, all under the name of DACUM. A collection of DACUM charts has been started and an exchange system proposed. Sinnett (1974:2) notes, "the College

Bibliocentre has shown interest in setting up this system which could be available to all curriculum and instructional developers." The rationale underlying this organization of DACUM collections is that most provinces have set up community colleges and/or adult training institutions. Sinnett, (1974:2) further notes that "although autonomous effort may be needed to develop the original. . . competencies in curriculum work, it may be time now to begin economizing on the efforts in this area."

MEDICAL RECORDS

The history of medical records from its beginnings to the present time, has continued unbroken, although greater progress has been made in some periods more than in others.

History of Medical Records

> The history of medical records runs parallel with the history of medicine. Records are as necessary for the practice of medicine as medications are for effective treatment, and they seem to have been made from earliest antiquity. (Huffman, 1972:1)

Huffman, (1972:1-30) provides an overview of the development of medical records, a summary of which follows.

Eighteenth Century: In the eighteenth century, Benjamin Franklin was one of the leaders in the movement to establish the first incorporated hospital within the United States. This institution, now known as Pennsylvania Hospital, was established in Philadelphia in 1752. Franklin served as secretary of the hospital, and many of its earliest records are in his handwriting. For the first 50 years the only medical records kept were those on the register, in which the patient's name, address, disorder, and the dates of admission and discharge were recorded, along with the result on discharge. This information has been preserved from the first admission to the present time.

The New York Hospital opened in 1771 and started its first register of patients in 1793. Many of the histories dating from about 1808 follow a definite routine similar to the one followed today, stating diagnosis, age, date of admission, occupation, appearance, illness, and treatment, together with progress notes.

Nineteenth Century: On September 3, 1821, the Massachusetts General Hospital, Boston, Massachusetts, opened. It has the distinction of having a complete file of clinical records, with all cases catalogued, dating from the day it opened. This hospital seems to be the first to have had a medical record librarian. She was Mrs. Grace Whiting Myers (1859 - 1957) the first president of the Association of Record Librarians of North America, and librarian emeritus of Massachusetts General Hospital and honorary president of the American Medical Record Association.

Twentieth Century: While teaching hospitals were keeping records, after a fashion, prior to the 20th century, it was not until the beginning of this era that medical records received serious consideration by other types of hospitals, especially by medical and hospital associations. In 1902 the American Hospital Association discussed medical records for the first time at a convention. Some of the problems brought out at that meeting were that there was no uniformity in methods, and no single type of person in charge of records.

In 1905, at the 7th Annual Meeting of the American Medical Association, a paper entitled, "Clinical Chart for the Records of Patients in Small Hospitals," published in the Journal of the American Medical Association, pointed out the necessity for a complete record of the progress of the patient in the hospital both for reference and for medico legal needs.

In 1913 the American College of Surgeons felt that it could best elevate the standards of surgery by a continent-wide standardization of hospitals. The College realized that some method would have to be devised in their standardization program to provide better medical records for use not only by candidates for fellowship, but also for efficient care of the patient in present and future illnesses, for the medico legal needs of the hospital, physician, and the patient, and for use in medical research. They therefore adopted as one of the minimum requirements for hospital standardization, "that accurate and complete case records be written for all patients and filed in an accessible manner in the hospital," Huffman (1972:21). Steady improvement in the quality and quantity of medical records began with the advent of hospital standardization.

Professionalization of Record Keeping Through Organization

Conferences had been successful in creating greater interest in the improvement of the quality of medical records, and the Director of Hospital Activities of the American College of Surgeons issued a special invitation to the medical record workers of the United States and Canada to attend a meeting in Boston during the Clinical Congress of the American College of Surgeons. The meeting was to be devoted exclusively to medical records and medical record-keeping. The Director appointed Mrs. Grace Whiting Meyers of the Massachusetts General Hospital, as general chairman. This was the first meeting lasting more than a day where medical records and problems concerned with their content, availability, and preservation were exclusively discussed. It was also the first meeting where exhibits of exclusive interest to medical record workers were shown. It was at this meeting in October, 1928 that the Association of Record Librarians of North America was organized and took as its main objective, "To elevate the standards of clinical records in hospitals, dispensaries, and other distinctly medical institutions." (Huffman, 1972:23). During the first year, members were admitted from 25 of the 48 states, the District of Columbia and Canada. In 1972, membership exceeded 10,000 from all 50 states, the District of Columbia, Puerto Rico, Canada and 30 other countries.

Thus, through the co-operation of the hospital and medical associations with medical record personnel working toward the same goal--the proper care of the sick and injured--the quantity and quality of medical records steadily improved.

At the first annual meeting held in Chicago, in 1929, ways and means of disseminating the educational information which had been presented at the meeting were considered. Accordingly, in January, 1930, the first issue of the Bulletin of the Association of Record Librarians of North America was mailed to the membership. It continued to serve as an educational medium throughout the years, and in order to more adequately denote its professional status, the name was changed to the, "Journal of the American Association of Medical Record Librarians". In 1962 the name was again changed to, "Medical Record News".

Educational Programs

After forming the Association, members realized that those trained by the apprenticeship method, which had been the only method available, could no longer cope with the problems of their work. They could not adequately meet the objectives which they had established when the Association was organized; and they could not be expected to organize departments that would meet the newer, more stringent requirements. This situation led to the appointment of a committee for the training of medical record practitioners.

A curriculum was drawn up for the use of hospitals desiring to establish schools. The prerequisites for application, the length of the courses, and the procedures to be followed for approval of the schools were also established. By 1935 the educational program was ready to function, and four schools and instructors were approved. One hospital based school was affiliated with a college from the beginning and was the first degree granting school.

In Canada, in 1935, a school for the training of Medical Record Librarians was opened in the Hotel Dieu Hospital, Kingston, Ontario. This school remained open for one year and in 1937 the Ontario Association of Medical Record Librarians opened a school in St. Michael's Hospital, Toronto. By 1972 there were 36 approved schools, all of which either granted degrees or required them for entrance.

The association had inspected and approved its own schools until 1942 when the Council on Medical Education and Hospitals was authorized to establish standards, inspect training programs, and publish lists of approved schools. The educational committee for these schools, now known as the Committee on Education and Registration, had the advantage of the broad experience of groups with allied interests to guide in preparing workers to help in raising the standards of clinical records.

The curriculum has been steadily strengthened, the requirements for entrance raised, and the courses lengthened. The medical record programs are of one to two years' duration.

Registration

As medical record work began to take on a professional status, it was felt that standards for measuring the ability of the workers was needed. In 1932 a registry was established. A Board of Registration was appointed to formulate examinations for registrants, to pass judgment upon the qualifications of the applicants and the papers of the examinees, and to confer the certificate of registration upon successful candidates, thus awarding them the privilege of using the letters, R.R.A. after their names to indicate their professional rating. Requirements for registration have been raised through the years in line with the knowledge and skills required, and as of January, 1965, applicants for registration were required to be graduates of a school approved for the training of medical record administrators.

Accreditation of Medical Record Technicians

Because of the shortage of properly trained medical record administrators, it became evident by 1951 that there was a need for trained ancillary workers who would have less training and experience than a medical record

administrator; but would be qualified to work under the supervision of a registered medical record administrator in a large hospital, or on their own in a small hospital, which had the liaison services of a registered medical record administrator. Accordingly, a curriculum was drawn up and prerequisites for entrance established for schools to train this class of worker.

In 1953 the first schools for the training of medical record technicians were approved, and there are now 54 such programs across the United States and Canada.

The American Medical Record Association conducts a correspondence course for personnel employed in the medical record departments of health care facilities. Successful completion of this course also provides eligibility to take the national accreditation examination.

International Interest in Medical Records

The American Medical Record Association, organized in 1928, was the first national association. While the original membership included many Canadian Medical Record Librarians, these members soon realized the advantages of an organization with common goals, and in 1942, organized the Canadian Association of Medical Record Librarians.

In 1948, the medical record personnel of Great Britain organized as the Association of Medical Record Officers of Great Britain.

A year later, in 1949, the Australian Hospital Association recognized the value of trained medical record personnel and formed two state groups: the New South Wales and Victorian Associates of Medical Record Librarians. In 1952, the Australian Federation of Medical Record Librarians was organized. The responsibilities of the Australian Medical Record Librarians are very similar to those of their counterparts in Canada and the United States.

Channels of communication were soon established between the members of the organized associations as well as with isolated workers in other countries. The first International Congress on Medical Records was held in London in 1952 with representations from nine countries participating. International interest is spreading and, as yet, although there are only eight organized national associations, 24 additional countries have had representation at one or more of the six international congresses. The countries which have organized associations all have some type of formal training available. In addition, several members from various associations have gone to other countries to help establish medical record departments.

Summary

The history of medical records, from its beginnings to the present time, has continued unbroken even though

greater progress has been made in some periods than in others. The greatest improvement began with the inauguration of the hospital standardization movement in 1918. New gains were made after organization of the medical record workers, the establishment of specialized training programs and the creation of standards for measuring professional efficiency.

The mid-twentieth century brought in an era in which all medical, paramedical, and hospital associations were united in the same primary goal--the proper care of the sick and injured. It is an era which promises great advances in the care and treatment rendered to patients, in the quality of the medical record, and in the competence of medical record practitioners of the future. Medical records, upon which medical knowledge is based, should continue to improve in quality and reliability at a greater pace in the future than in the past. With international interest in medical records and the organization of the International Federation of Medical Records Organizations, the quality of the medical record should improve greatly throughout the world as should the services rendered by all medical record personnel.

CHAPTER III

INSTRUMENTATION AND METHODOLOGY

The previous chapter contained a review of the professional literature and research that was either directly or tangentially related to this study. This chapter describes in detail the method used in conducting the research. It includes also a description and discussion of the instruments used to collect data for analysis and the methodology employed to bring the study to its conclusion.

Phase I

The DACUM process as outlined in Chapter II was used for the collection of data in Phase I. The purpose of the research during Phase I was to determine what were the competency areas and competencies perceived to be required by H.R.A.s and H.R.T.s.

The DACUM committee of 12 resource persons was comprised of health record administrators and health record technicians representing health record practitioners from large and small, rural and urban hospitals. The committee assembled at S.A.I.T. for three days in June, 1980. Because S.A.I.T. was chosen as the site for the DACUM committee, practitioners close to, or residing in Calgary

were asked. Those volunteering their time are listed in Appendix A.

During this time the DACUM process of identifying general areas of competency and competencies was followed under the leadership of a facilitator. This resulted in a list of 430 competencies grouped in 16 competency areas as shown in Appendix B.

Phase II

The population of this research included all those persons who were registered with the Alberta Health Record Association (A.H.R.A.). After securing the membership list and a letter of support from the A.H.R.A., N.A.I.T. and S.A.I.T., the researcher prepared a covering letter to accompany the questionnaire that was mailed to 300 Health Record practitioners during the month of July, 1980.

The purpose of the letter was to give an overview of the study, the role of the participants in the research and to request completed questionnaires be returned prior to August 30, 1980. A self-addressed stamped envelope was also included. The questionnaire listed the competency areas and the competencies identified by the DACUM committee. The purpose of circulating the identified competency list was to attempt to validate the competencies and competency areas described by the DACUM committee. The respondents were asked to:

a) put a check mark beside those skills (competencies) they use, or have used as a health record practitioner

b) leave blank those which they have not done

c) add any skills that they thought might be missing

A 53.3 percent response was obtained.

Phase III

A second questionnaire utilizing the 14 competency areas was designed to collect four kinds of data:

1. What demographic and professional descriptions characterize H.R.A.s and H.R.T.s in Alberta?

2. How did the perceptions of competencies held by and for H.R.T.s, differ from those held by and for H.R.A.s?

3. What was perceived by H.R.A.s and by H.R.T.s as the actual and the preferred locus of instruction for each competency area?

4. What perceptions relevant to the training program are held by H.R.A.s and H.R.T.s?

The instrument was pilot tested by staff members of the Health Record Technology Program. The questionnaire was then mailed to 330 health record practitioners[1] with a stamped, self-addressed return envelope (see Appendix D). A 32.4 percent response rate was obtained.

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[1] The difference in population size is attributed to an increase in the number of practitioners in the province between Phase II and Phase III.

The information from the questionnaire was transferred to IBM cards and the processing of data was completed at the University of Alberta, Department of Computing Services, utilizing a SPSS program from the Division of Educational Research Services. Frequency distributions and chi square analyses were made.

CHAPTER IV

ANALYSIS OF DATA

This chapter presents a statistical analysis, and interpretation of the results derived from each phase of the research.

PHASE I

The DACUM committee identified 430 competencies in 16 competency areas. Appendix B details the breakdown of these competencies. The 16 competency areas and number of competencies are shown in Table 1. Four competency areas (E, I, M, and P) of the total 16 areas contain 51.6 percent of the total 430 competencies.

TABLE 1

DISTRIBUTION OF COMPETENCIES BY COMPETENCY AREA IDENTIFIED BY DACUM COMMITTEE

COMPETENCY AREA	NUMBER OF COMPETENCIES
A. Perform Admission and Discharge Procedures	17
B. File and Retrieve Records	15
C. Code Records	20
D. Abstract Records	15
E. Transcribe	35
F. Use Equipment	19
G. Perform Incomplete Record Control Procedures	16
H. Perform Information Retention Techniques	10
I. Prepare, Retrieve, Analyze and Use Data	43
J. Train and Teach	17
K. Communicate Effectively in Work Environment	31
L. Conduct Oneself Professionally	27
M. Perform Admitting Functions	66
N. Maintain and Manage Medical Library	14
O. Maintain Medical Staff Organization Records	7
P. Perform Supervisory and/or Management Skills	78
TOTAL	430

PHASE II

Respondent Characteristics

The population was composed of 300 health record practitioners; 160 practitioners responded giving a response rate of 53.3 percent. Table 2 summarizes the data regarding the characteristics of respondents. Forty-five H.R.A.s (28.13 percent) were N.A.I.T. graduates and 22 H.R.T.s (13.75 percent) were S.A.I.T. graduates. The majority of the respondents (58.12 percent) were graduates from a variety of Canadian and American institutions.

Validation of Competencies

Of the 430 competencies identified by the DACUM process, 223 were identified as required by 50 percent or more of the H.R.A.s and H.R.T.s identified 116 of those competencies. The competencies validated were predominantly from 12 of the 16 competency areas. Two areas, N and O, had no validated competencies. Appendix D details the breakdown of validated competencies. Table 3 shows the distribution of competencies by area. In seven competency areas, A, B, C, D, G, K and L; 50 percent or more of the competencies were common to both H.R.A.s and to H.R.T.s. Two exclusive, but minor, areas for H.R.A.s were H and M. No areas were exclusive to H.R.T.s.

TABLE 2

RESPONDENT CHARACTERISTICS

QUALIFICATIONS	PLACE OF GRADUATION							
	N.A.I.T.		S.A.I.T.		OTHER		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%
H.R.A.	45	28.13			16	10.0	61	38.13
H.R.T.			22	13.75	36	22.5	58	36.25
Degree					7	04.4	7	04.4
Other					34	21.22	34	21.22
TOTALS	45	28.13	22	13.75	93	58.12	160	100.0

TABLE 3

DISTRIBUTION OF COMPETENCIES FOR H.R.A.S AND FOR H.R.T.S BY COMPETENCY AREA

COMPETENCY AREA	NO. OF COMPETENCIES H.R.A.	H.R.T.
A. Perform Admission and Discharge Procedures	16	14
B. File and Retrieve Records	12	8
C. Code Records	19	15
D. Abstract Records	15	11
E. Transcribe	20	5
F. Use Equipment	8	3
G. Perform Incomplete Record Control Procedures	15	15
H. Perform Information Retention Techniques	3	
I. Prepare, Retrieve, Analyze and Use Data	14	1
J. Train and Teach	9	4
K. Communicate Effectively in Work Environment	26	16
L. Conduct Oneself Professionally	26	22
M. Perform Admitting Functions	1	
P. Perform Supervisory and/or Management Skills	39	2
TOTALS	223	116

PHASE III

Of a total of 330 questionnaires mailed in Phase III, 107 were returned. This represents an overall return of 32.4 percent. Data from Table 4 show that 43 of the respondents or 40.2 percent were Health Record Administrators and 49 of the respondents or 45.8 percent were Health Record Technicians.

TABLE 4

HEALTH RECORD PRACTITIONERS IN ALBERTA INVOLVED IN THE STUDY

GROUP	NUMBER OF PARTICIPANTS	REL. FREQ. (%)
H.R.A.	43	40.2
H.R.T.	49	45.8
Unknown	15	14.0
TOTALS	107	100.0

Background Data

Table 5 presents a distribution of respondents by training site and period of graduation. The three time periods arrange graduates from the N.A.I.T. and S.A.I.T. programs into three groups covering an 12 year span, the first graduating class being in 1968 and the last class reporting in this study, being 1980. Approximately equal numbers of respondents graduated in each time period.

TABLE 5

DISTRIBUTION BY TRAINING SITE AND PERIOD OF GRADUATION

TRAINING SITE	PRE 1971 NO.	%	1972 - 1976 NO.	%	POST 1976 NO.	%	UNKNOWN NO.	%	TOTAL NO.	%
N.A.I.T.	9	8.9	11	10.2	12	11.2			32	29.9
S.A.I.T.	1	0.2	8	7.4	3	2.8			12	11.3
Other	20	19.2	15	14.0	19	17.7			54	50.4
Unknown							9	8.4	9	8.4
TOTALS	30	28.3	34	31.6	34	31.7	9	8.4	107	100.0

With only a few exceptions graduates of both H.R.A. and H.R.T. programs obtained their first position in hospitals. The breakdown is shown in Table 6.

TABLE 6

FIRST POSITION (INSTITUTIONAL TYPE) BY PROGRAM

	First Position (Institutional Type)									
PROGRAM	HOSPITAL NO.	%	CLINIC NO.	%	TRAINING INSTITUTION NO.	%	UNKNOWN NO.	%	TOTAL NO.	%
H.R.A.	42	39.2	0		0		0		42	39.2
H.R.T.	47	43.9	1	1.0	1	1.0	0		49	45.9
Unknown							16	14.9	16	14.9
COMBINED	89	83.1	1	1.0	1	1.0	16	14.9	107	100

As shown in Table 7 most first positions, described by function, of both groups were characterized as mainly technical/clerical in nature (49.5 percent), followed by 27.1 percent of the positions being a balance of managerial and technical/clerical. Only seven (6.6 percent) of the first positions were characterized as mainly managerial.

TABLE 7

FIRST POSITION (FUNCTIONAL TYPE) BY PROGRAM

PROGRAM	First Position (Functional Type) MAINLY TECH/ CLERICAL NO.	%	MAINLY MANAGERIAL NO.	%	BALANCE OF THE TWO NO.	%	OTHER NO.	%	UNKNOWN NO.	%	TOTAL NO.	%
H.R.A.	20	18.7	5	4.7	18	16.8	0				43	40.3
H.R.T.	33	30.8	2	1.9	11	10.3	3	2.8			49	45.7
Unknown									15	14.0	15	14.0
COMBINED	53	49.5	7	6.6	29	27.1	3	2.8	15	14.0	107	100

As shown in Table 8 most first positions were described as Department Head positions by both H.R.A.s and by H.R.T.s. Fourteen percent of the H.R.A.s and 15.9 percent of the H.R.T.s assumed the role of Department Head as their first position after graduation. The next most common first position was staff practitioner represented by 12.2 percent H.R.A.s and 14.0 percent H.R.T.s.

As shown in Table 9 most current positions were described by the combined group (24.3 percent) as "Other". It is speculated that the large number of respondents identifying this response as their current position are those working in an area related to health records, but which is not described by this questionnaire. Such positions would include records work in industry and health care departments of the government.

As shown in Table 10, most practitioners (25.2 percent) have held one position since graduation, but 4.7 percent have held as many as six positions. The average number of positions held by H.R.A.s was 2.8 positions and by H.R.Ts., 2.3 positions.

TABLE 8

FIRST POSITION (STATUS TYPE) BY PROGRAM

PROGRAM	First Position (Status Type)															
	DEPART. HEAD		ASSISTANT DEPART. HEAD		SUPERVISOR		STAFF PRACTITIONER		INSTRUCTOR		OTHER		UNKNOWN		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
H.R.A.	15	14.0	5	4.7	1	0.9	13	12.2	0		9	8.5			43	100
H.R.T.	17	15.9	2	1.8	0		15	14.0	1	0.9	13	12.1			48	100
Unknown													16	100	16	100
COMBINED	32	29.9	7	6.5	1	0.9	28	26.2	1	0.9	22	20.6	16	15.0	107	100

TABLE 9

CURRENT POSITION (STATUS TYPE)

Current Position (Status Type)

PROGRAM	DEPART. HEAD NO.	%	ASSISTANT DEPART. HEAD NO.	%	SUPERVISOR NO.	%	STAFF PRACTITIONER NO.	%	OTHER NO.	%	UNKNOWN NO.	%	TOTAL NO.	%
H.R.A.	10	9.3	1	.95	7	6.6	7	6.6	10	9.38			35	32.7
H.R.T.	11	10.3	1	.95	4	3.7	9	8.4	16	15.0			41	38.3
Unknown											31	28.9	31	29.0
COMBINED	21	19.67	2	1.9	11	10.3	16	15.0	26	24.3	31	28.9	107	100

TABLE 10

NUMBER OF POSITIONS SINCE GRADUATION BY PROGRAM

	Number Of Positions Since Graduation															
	1		2		3		4		5		6		UNKNOWN		TOTAL	
PROGRAM	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
H.R.A.	9	8.4	13	12.1	8	7.5	6	5.7	3	2.8	4	3.8			43	40.3
H.R.T.	18	16.8	12	11.3	7	6.5	4	3.7	5	4.7	1	0.9			47	43.9
Unknown													17	15.8	17	15.8
COMBINED	27	25.2	25	23.4	15	14.08	10	9.45	8	7.5	5	4.7	17	15.8	107	100

Perceptions of Competencies

Four questions were asked to determine the respondents' actual and preferred locus of learning each competency area at the level of initial understanding and at the level of application.

To determine the actual locus of learning, the respondents were asked the following question:

Where did you acquire an:

a. initial understanding of the competency area?

Data collected with this question were used in preparing Table 11. For all competency areas, a chi square significant at $p<.05$ was obtained showing that there were statistically significant differences between H.R.A.s and H.R.T.s with respect to actual locus of acquiring understanding of the competency area.

The table is interpreted as indicated by the following example:

In competency area A, 51.4 percent of H.R.A.s actually learned the related competencies in the classroom; whereas only 16.3 percent of the H.R.T.s learned the competencies in the classroom; most of the H.R.T.s (67.4 percent) learned the competencies on the job.

Examination reveals a number of notable comparisons, among which are the following: In each of the 14 competency areas, most H.R.T.s actually learned the competencies on the job, whereas in only one area (J Train and Teach) did

H.R.A.s learn the competencies on the job. In eleven of the competency areas (A, B, C, D, E. H, I, K, L, M, P) most H.R.A.s learned the competencies in the classroom. Only in one competency area (G Perform Incomplete Record Control Procedures) did more H.R.A.s learn the competencies during the practicum component of the training program.

TABLE 11

PERCENTAGE DISTRIBUTION BY LOCUS OF UNDERSTANDING (ACTUAL)
BY COMPETENCY AREA AND BY PROGRAM

COMPETENCY AREA	LOCUS OF UNDERSTANDING BY PROGRAM										
	CLASSROOM		PRACTICUM		ON-THE-JOB		ELSEWHERE		NVR ACQ'D		
	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	P
A	51.4	16.3	42.9	16.3	5.7	67.4					.000
B	60.5	25.0	39.5	15.9		59.1					.000
C	86.1	37.0	11.1	13.0	2.8	45.7		4.3			.000
D	75.7	31.0	16.2	14.3	8.1	45.2		2.4			.000
E	85.4	37.8	4.9	20.0	4.9	40.0	2.4	2.2	2.4		.000
F	26.8	24.4	31.7	13.3	24.4	57.8	14.6	4.4	2.4		.013
G	34.2	20.5	60.5	18.2	5.3	61.4					.000
H	52.6	25.6	21.1	11.6	26.3	58.1				4.7	.009
I	69.2	26.2	17.9	19.0	10.3	45.2	2.6	4.8		4.8	.000
J	31.0	2.4	7.1	4.9	54.8	80.5	2.4	2.4	4.8	9.8	.011
K	50.0	25.6	17.5	11.6	10.0	48.8	22.5	14.0			.001
L	68.4	33.3	15.8	14.3	13.2	38.1	2.6	11.9		2.4	.012
M	62.5	25.0	20.0	9.1	12.5	54.5		2.3	5.0	9.1	.000
P	48.7	14.3	10.3	9.5	38.5	59.5		4.8	2.6	11.9	.007

To determine the preferred locus of understanding the competency area, the respondents were asked the following question:

> Where is the most effective locus:
>
> b. for acquiring an initial understanding of the competency area? (as you would have preferred it)

Data collected with this question were used in preparing Table 12. For 13 of the 14 competency areas, a chi square significant at $p<.05$ was obtained showing that there were statistically significant differences between H.R.A.s and H.R.T.s with respect to preferred locus of understanding the competency areas. The Table is interpreted as indicated by the following example: In competency area A, 64.1 percent of H.R.A.s preferred to learn the related competencies in the classroom; whereas only 31.8 percent of the H.R.T.s preferred to learn the competencies in the classroom, the majority of H.R.T.s (43.2 percent) preferring to learn the competencies on-the-job.

Examination reveals a number of notable comparisons, among which are the following: most H.R.A.s preferred to learn the competencies in all competency areas in the classroom, whereas most H.R.T.s preferred to learn only eight of the competency areas (C, D, E, H, I, K, L) in the classroom. The remaining six competency areas (A, B, F, G, J, P) H.R.T.s preferred to learn on the job.

TABLE 12

PERCENTAGE DISTRIBUTION BY LOCUS OF UNDERSTANDING (PREFERRED) BY COMPETENCY AREA AND BY PROGRAM

COMPETENCY AREA	CLASSROOM		PRACTICUM		ON-THE-JOB		ELSEWHERE		NVR ACQ'D		P
	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	P
A	64.1	31.8	33.3	25.0	2.6	43.2					.000
B	63.4	30.2	36.6	30.2		39.5					.000
C	91.9	45.2	2.7	23.8	5.4	28.6		2.4			.000
D	82.9	50.0	12.2	26.2	4.9	23.8					.004
E	88.4	58.5	4.7	22.0	4.7	19.5	2.3				.006
F	57.1	37.2	21.4	20.9	14.3	41.9	7.1				.014
G	63.4	34.1	31.7	29.3	4.9	36.6					.001
H	78.0	42.9	7.3	19.0	14.6	38.1					.004
I	80.5	47.5	17.1	25.0	2.4	27.5					.001
J	47.6	40.0	9.5	10.0	42.9	47.5		2.5			.700
K	65.9	39.5	4.9	14.0	9.8	37.2	19.5	9.3			.005
L	72.5	47.6	15.0	14.3	7.5	35.7	5.0	2.4			.019
M	78.9	36.6	18.4	29.3	2.6	34.1					.000
P	68.3	39.5	12.2	11.6	17.1	48.8	2.4				.013

To determine the actual locus of learning, for performance, of the 14 competency areas, respondents were asked the following question:

> Where did you acquire an:
>
> c. ability to perform independently the activities associated with the competency area?

Data collected with this question were used in preparing Table 13. For eight of the 14 competency areas, a chi square significant at $p<.05$ was obtained showing that there were statistically significant differences between H.R.A.s and H.R.T.s with respect to actual locus of learning for performance of the competency areas. The Table is interpreted as indicated by the following example. Competency A was the only area where the majority of H.R.A.s (71.1 percent) acquired the ability to perform the competencies in the classroom. The majority of H.R.T.s (81.4 percent) acquired the ability during the practicum component of the training program, with the remaining H.R.T.s (16.3 percent) acquiring the ability in the classroom.

Examination reveals a number of notable comparisons, among these are the following: In all competency areas, except A, most H.R.T.s acquired the ability to perform the competencies associated with the competency area on-the-job. H.R.A.s acquired the ability to perform the competencies on the job in eight areas (C, F, H, I, J, K, L and P). Of the remaining six areas, five areas (B, D, E,

G, M) were acquired during the practicum and one area, (A) was acquired in the classroom. Five areas (H, I, J, K, L, P) showed no significant differences between programs.

TABLE 13

PERCENTAGE DISTRIBUTION BY LOCUS OF PERFORMANCE (ACTUAL)
BY COMPETENCY AREA AND BY PROGRAM

COMPETENCY AREA	LOCUS OF PERFORMANCE BY PROGRAM										
	CLASSROOM		PRACTICUM		ON-THE-JOB		ELSEWHERE		NVR ACQ'D		
	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	P
A	71.1	16.3	28.9	81.4						2.3	.000
B	10.5	4.4	71.1	28.9	18.4	64.4		2.2			.000
C	22.5	6.5	30.0	17.4	47.5	69.6		6.5			.020
D	18.4	7.0	42.0	18.6	39.5	62.8		2.3		9.3	.014
E	25.6	18.2	46.2	18.2	25.6	56.8	2.6			6.8	.006
F	16.7	6.5	23.8	8.7	50.0	82.6	9.5			2.2	.007
G	2.6	2.2	71.1	17.8	26.3	77.8				2.2	.000
H	2.6	2.4	33.3	16.7	56.4	66.7			14.3	7.7	.332
I	7.7	7.1	25.6	9.5	66.7	71.4		2.4		9.5	.100
J	7.3	2.6		2.6	85.6	87.2		2.6	7.3	5.1	.530
K	12.8	18.6	15.4	14.0	46.2	55.8	25.6	11.6			.387
L	15.0	21.4	37.5	11.9	42.5	54.8	5.0	9.5		2.4	.087
M	5.6	2.3	63.9	18.6	22.2	65.1		2.3	8.3	11.6	.000
P	5.0	2.4	5.0	7.3	82.5	70.7	2.5	2.4	5.0	17.1	.469

To determine the preferred locus of learning, for performance of the 14 competency areas, respondents were asked the following question:

> Where is the most effective locus of learning each competency area? (as you would have preferred it)
>
> d. for acquiring the ability to perform independently the activities associated with the competency area?

Data collected with this question were used in preparing Table 14. For ten of the 14 competency areas, a chi square significant at $p<.05$ was obtained showing that there were statistically significant differences between H.R.A.s and H.R.T.s with respect to preferred locus of learning for performance of competency areas. The Table is interpreted as indicated by the following example. In Competency area A, 75.0 percent of the H.R.A.s preferred to acquire the ability to perform the competencies associated with the area during the practicum, whereas; only 35.6 percent of the H.R.T.s preferred to acquire the ability during the practicum; most of them, (60.0 percent) preferred to acquire the ability on-the-job.

Examination reveals a number of notable comparisons, among them are the following: In ten competency areas (A, B, C, D, E, G, H, I, L and M) most H.R.A.s preferred to acquire the ability to perform the competencies during the practicum. There were no significant differences between

TABLE 14

PERCENTAGE DISTRIBUTION BY LOCUS OF PERFORMANCE (PREFERRED)
BY COMPETENCY AREA AND BY PROGRAM

COMPETENCY AREA	LOCUS OF PERFORMANCE BY PROGRAM										
	CLASSROOM		PRACTICUM		ON-THE-JOB		ELSEWHERE		NVR ACQ'D		
	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	HRA	HRT	P
A	5.0	4.4	75.0	35.6	20.0	60.0					.000
B	20.0		60.0	46.7	20.0	53.3					.000
C	33.3	6.8	35.9	36.4	28.2	54.5	2.6	2.3			.012
D	32.5	15.9	45.0	31.8	20.0	52.3	2.5				.015
E	33.3	22.7	45.2	29.5	19.0	47.7	2.4				.035
F	40.5	9.1	21.4	25.0	31.0	65.9	7.1				.000
G	7.7		69.2	38.1	23.1	61.9					.000
H	12.8	4.9	51.3	31.7	33.3	63.4	2.6				.044
I	28.2	19.5	48.7	22.0	20.5	58.5	2.6				.004
J	17.1	17.1	9.8	17.1	68.3	63.4	4.9	2.4			.746
K	20.0	26.7	27.5	20.0	32.5	44.4	20.0	8.9			.316
L	25.6	27.9	41.0	18.6	28.2	51.2	5.1	2.3			.083
M	10.8	7.1	75.7	38.1	13.5	54.8					.000
P	13.2	13.6	23.7	22.7	57.9	63.6	5.3				.486

programs in areas J, K, L and P. In area F (40.5 percent) H.R.A.s indicated they would prefer to learn the abilities in the classroom. H.R.T.s preferred to acquire the ability to perform the competencies in all competency areas on-the-job.

Analysis of Training Perceptions Within Programs

Tables 11 through 14 have focused on comparisons between programs. Tables 15 through 18 present comparisons within programs. Table 16 shows a distribution of H.R.A.s by their actual and by their preferred locus of understanding the 14 competency areas. Examination of this table reveals the following: In 11 competency areas (A, B, C, D, E, H, I, K, L, M, P) most H.R.A.s actually acquired an understanding of the competency area in the classroom. Of the remaining three competency areas, understanding of two areas (F, G) was acquired during the practicum and of one area (J) on-the-job. The majority of H.R.A.s indicated they would prefer to acquire an understanding of all competency areas in the classroom.

TABLE 15

PERCENTAGE DISTRIBUTION OF H.R.A.S BY LOCUS OF UNDERSTANDING (ACTUAL AND PREFERRED) AND BY COMPETENCY AREA

Competency Area	Classroom		Practicum		On-the Job		Elsewhere	
	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.
A	51.4	64.1	42.9	33.3	5.7	2.6		
B	60.5	63.4	39.5	36.3				
C	86.1	91.9	11.1	2.7	2.8	5.4		2.4
D	75.7	82.9	16.2	12.2	8.1	4.9		
E	85.4	88.4	4.9	4.7	4.9	4.7	2.4	
F	26.8	57.1	31.7	21.4	24.4	14.3	14.6	
G	34.2	63.4	60.5	31.7	5.3	4.9		
H	52.6	78.0	21.1	7.3	26.3	14.6		
I	69.2	80.5	17.9	17.1	10.3	2.4	2.6	
J	31.0	47.6	7.1	9.5	54.8	42.9	2.4	2.5
K	50.0	65.9	17.5	4.9	10.0	9.8	22.5	9.3
L	68.4	72.5	15.8	15.0	13.2	7.5	2.6	2.4
M	62.5	78.9	20.0	18.4	12.5	2.6		
P	48.7	68.3	10.3	12.2	38.5	17.1		

Table 16 shows a distribution of H.R.A.s by their actual and by their preferred locus of performing the competency areas. Examination of this Table reveals the following: In eight competency areas, (C, F, H, I, J, K, L, P) the majority of H.R.A.s actually acquired an ability to perform the competency areas on-the-job. Of the remaining six competency areas, five areas (B, D, E, G, M) were acquired by the majority during the practicum component of the training program, with the remaining competency area A (Perform Admission and Discharge Procedures) acquired in the classroom. The majority of H.R.A.s indicated they would prefer to acquire an ability to perform the competencies in ten competency areas, (A, B, C, D, E, G, H, I, L, M) during the practicum component of their training program. H.R.A.s preferred to acquire an ability to perform in three areas (J, K, P) on-the-job, and one area (F Use Equipment) in the classroom.

TABLE 16

PERCENTAGE DISTRIBUTION OF H.R.A.S BY LOCUS OF PERFORMANCE (ACTUAL AND PREFERRED) BY COMPETENCY AREA

Competency Area	Classroom		Practicum		On-the-Job		Elsewhere	
	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.
A	71.1	5.0	28.9	75.0		20.0		
B	10.5	20.0	71.1	60.0	18.4	20.0		
C	22.5	33.3	30.0	35.9	47.5	28.2		2.6
D	18.4	32.5	42.0	45.0	39.5	20.0		2.5
E	25.6	33.3	46.2	45.2	25.6	19.0	2.6	2.4
F	16.7	40.5	23.8	21.4	50.0	31.0	9.5	7.1
G	2.6	7.7	71.1	69.2	26.3	23.1		
H	2.6	12.8	33.3	51.3	56.4	33.3		2.6
I	7.7	28.2	25.6	48.7	66.7	20.5		2.6
J	7.3	17.1		9.8	85.6	68.3		4.9
K	12.8	20.0	15.4	27.5	46.2	32.5	25.6	20.0
L	15.0	25.6	37.5	41.0	42.5	28.2	5.0	5.1
M	5.6	10.8	63.7	75.7	22.2	13.5		
P	5.0	13.2	5.0	23.7	82.5	57.9	2.5	5.3

Table 17 shows a distribution of Health Record Technicians by their actual and by their preferred locus of understanding the 14 competency areas. Examination of this Table reveals the following: Most H.R.T.s acquired an understanding of all 14 competency areas on-the-job. They indicated they would prefer to acquire an understanding of six of those areas (A, B, F, G, J, P) on-the-job, preferring to acquire an understanding of eight areas (C, D, E, H, I, K, L, M) in the classroom.

TABLE 17

PERCENTAGE DISTRIBUTION OF H.R.T.S BY LOCUS OF UNDERSTANDING (ACTUAL AND PREFERRED) AND BY COMPETENCY AREA

Competency Area	Classroom		Practicum		On-the-Job		Elsewhere	
	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.
A	16.3	31.8	16.3	25.0	67.4	33.2		
B	25.0	30.2	15.9	30.2	59.1	39.5		
C	37.0	45.2	13.0	23.8	45.7	28.6	4.3	2.4
D	31.0	50.0	14.3	26.2	45.2	23.8	2.4	
E	37.8	58.5	20.0	22.0	40.0	19.5	2.2	
F	24.4	37.2	13.3	20.9	57.8	41.9	4.4	
G	20.5	34.1	18.2	29.3	61.4	36.6		
H	25.6	42.9	11.6	19.0	58.1	38.1		
I	26.2	47.5	19.0	25.0	45.2	27.5	4.8	
J	2.4	40.0	4.9	10.0	80.5	47.5	2.4	2.5
K	25.6	39.5	11.6	14.0	48.8	37.2	14.0	9.3
L	33.3	47.6	14.3	14.3	38.1	35.7	11.9	2.4
M	25.0	36.6	9.1	29.3	54.5	34.1	2.3	
P	14.3	39.5	9.5	11.6	59.5	48.8	4.8	

Table 18 shows a distribution of Health Record Technicians by their actual and by their preferred locus of performing the competency areas. Analysis of this table reveals the following: In all competency areas, except A, (Perform Admission and Discharge Procedures) the majority of H.R.T.s actually acquired and would prefer to acquire an ability to perform the competencies on-the-job. H.R.T.s indicated they actually acquired an ability to perform competency area A during the practicum component of their training program, preferring to acquire an ability to perform this competency area on-the-job.

TABLE 18

PERCENTAGE DISTRIBUTION OF H.R.T.S BY LOCUS OF PERFORMANCE (ACTUAL AND PREFERRED) BY COMPETENCY AREA

Competency Area	Classroom		Practicum		On-the-Job		Elsewhere	
	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.	Act.	Prfd.
A	16.3	4.4	81.4	35.6		60.0		
B	4.4		28.9	46.7	64.4	53.3	2.2	
C	6.5	6.8	17.4	36.4	69.6	54.5	6.5	2.3
D	7.0	15.9	18.6	31.8	62.8	52.3	2.3	
E	18.2	22.7	18.2	29.5	56.8	47.7		
F	6.5	9.1	8.7	25.0	82.6	65.9		
G	2.2		17.8	38.1	77.8	61.9		
H	2.4	4.9	16.7	31.7	66.7	63.4		
I	7.1	19.5	9.5	22.0	71.4	58.5	2.4	
J	2.6	17.1	2.6	17.1	87.2	63.4	2.6	2.4
K	18.6	26.7	14.0	20.0	55.8	44.4	11.6	8.9
L	21.4	27.9	11.9	18.6	54.8	51.2	9.5	2.3
M	2.3	7.1	18.6	38.1	65.1	54.8	2.3	
P	2.4	13.6	7.3	22.7	70.7	63.6	2.4	

To determine to what extent the training program provided preparation for their first job, the respondents were asked:

> Indicate to what extent your training program prepared you generally, for your first job in the field--
>
> I was able to cope in all aspects of the job.
>
> I was able to cope in most areas.
>
> I was able to cope in only a few areas.
>
> I was able to cope in no areas.

Data collected with this question were used in preparing Table 19. H.R.A.s and H.R.T.s indicated that their program prepared them to cope in most or all areas of their first job. 94.8 percent of H.R.A.s and 100 percent of H.R.T.s perceived themselves to be prepared in all or most areas of their work. There was no statistically significant difference between the two programs.

TABLE 19
DISTRIBUTION BY PREPARATION FOR FIRST JOB BY PROGRAM

PROGRAM	PREPARED IN ALL AREAS NO.	%	MOST AREAS NO.	%	FEW AREAS NO.	%	NO AREAS NO.	%	TOTAL NO.	%
H.R.A.	9	23.7	27	71.1	1	2.6	1	26	37	100
H.R.T.	3	23.1	10	76.9					13	100

p>.05

To determine to what extent the training program provided a basis for further expertise, the respondents were asked:

> Indicate to what extent your training program provided a basis for the development of further technical expertise--
>
> An excellent basis.
>
> A limited basis.
>
> No basis.

Data collected with this question were used in preparing Table 20. H.R.A.s and H.R.T.s generally, rated their training program as a good basis for further technical expertise. 92.1 percent of the H.R.A.s and 84.6 percent of the H.R.T.s perceived their training program to provide an excellent or good basis for further technical expertise. However, 15.4 percent or three times as many H.R.T.s as H.R.A.s (5.3 percent) rated their training program as providing only a limited basis for further technical expertise.

TABLE 20
DISTRIBUTION BY FURTHER TECHNICAL EXPERTISE BY PROGRAM

PROGRAM	BASIS EXCELLENT		GOOD		LIMITED		NONE		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
H.R.A.	9	23.7	26	68.4	2	5.3	1	2.6	37	100
H.R.T.	4	30.8	7	53.8	2	15.4			13	100

p>.05

To determine to what extent the training program provided a basis for advancement, the respondents were asked:

> Indicate to what extent your training program provided a basis for advancement to a more responsible position--
>
> An excellent basis.
>
> A good basis.
>
> A limited basis.
>
> No basis.

Data collected with this question were used in preparing Table 21. 75.7 percent of the H.R.A.s and 69.2 percent of the H.R.T.s indicated their training program provided an excellent or good basis for advancement. However, 15.4 percent or five times as many H.R.T.s as H.R.A.s (2.7 percent) rated their training program as providing no basis for advancement.

TABLE 21

DISTRIBUTION OF TRAINING AS A BASIS FOR ADVANCEMENT BY PROGRAM

	BASIS FOR ADVANCEMENT									
PROGRAM	EXCELLENT		GOOD		LIMITED		NONE		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
H.R.A.	12	32.4	16	43.3	8	21.6	1	2.7	37	100
H.R.T.	3	23.1	6	46.1	2	15.4	2	15.4	3	100

p>.05

Comments

In addition to the previously identified instructions of the research instrument, the respondents were invited to write in any other comments which related to improving the preparation process for Health Record Practitioners. Sixty-four respondents (59.8 percent) wrote comments in this section. A summary of comments is presented.

During the H.R.A. training program, the standards for medical courses should remain high (n = 10), students should be better prepared in effective supervisory skills and communication skills (n = 19) and further emphasis should be placed on "continuing education" after graduation (n = 5).

The training program for H.R.T.s should provide more time in both the classroom and the practicum to practice the basic skills (n = 2) and a more realistic classroom setting should be provided in which to learn the basic skills (n = 5).

Additional comments included the following:

1. More exposure should be provided to students in different work settings, other than active treatment hospitals. (n = 3)

2. A screening process should be put in place to determine whether potential students are suited for the health record profession. It was recommended that some mechanism of pre-acceptance assessment would contribute to a motivated student body who will stand firm for the health record profession. (n = 2)

3. The student should work in hospitals of different sizes during their practicum as these sites would present different kinds of problems. (n = 8).

CHAPTER V

DISCUSSION OF FINDINGS

In this chapter some of the findings reported in Chapter IV are reviewed and discussed as they relate to programmatic and professional aspects of health records administration. The views and opinions are necessarily speculative and are attributed solely to the writer.

Overall Quality of the Programs

Virtually all health record practitioners, both H.R.A.s and H.R.Ts., perceived their training programs as preparing them in all or most areas of their work. Likewise most practitioners perceived their programs as providing an excellent or good basis for acquiring further technical expertise, and for advancement in the profession, although fewer H.R.T.s felt this way than H.R.A.s.

These perceptions indicate the overall quality and acceptability of both H.R.T. and H.R.A. preparation programs, therefore any recommendations arising from this study should be accepted as suggestions for improvements of a satisfactory program rather than as corrections of deficiencies.

That existing programs can be viewed as providing a solid basis for professional and career development is a theme that will be addressed later in this chapter. The

fact that fewer H.R.T.s feel this way is not surprising due to the shorter duration and technical emphasis of their preparation program.

Competencies Required by Practitioners

A total of 430 specific competencies in 16 different areas is clearly an awesome prospect for any program developer or manager. Fortunately the validation process reduces the number by about half and eliminates two areas entirely (Maintain and Manage Medical Library and Maintain Medical Staff Organization Records). Program planners should focus their attention on the 223 validated competencies, leaving the others to be learned on-the-job, through inservice or professional workshops. As technical requirements are likely to change over a career of practice, especially in the immediate future as a result of micro-computerization, the preparatory program should stress the importance of a professional attitude towards change, and the expectation of continuous growth in competence. Thus there could be some refocusing away from specific skills in preservice programs towards greater depth in the foundation of health records administration.

Support for the above containment can also be derived from the fact that, with only a few exceptions, health record practitioners obtained their first positions in hospitals. Therefore, concepts and skills should be presented in the context of hospital practice, leaving other

areas of application (e.g., local health unit, business premises) to be gained through professional experience or specialized training.

Of significance is the fact that of the 223 validated competencies all are perceived as required of H.R.A.s and a subset of 116 are required of H.R.T.s. The almost equal split provides a rationale for the integration of the two programs into two parts with year one producing a qualified H.R.T. and year two a qualified H.R.A. The union of the programs in one centre in the province would provide a consolidation of resources and trainees leading to economies of scale and the effective use of expertise. Furthermore, the integration of students could result in an enrichment of the learning environment for students and instructors alike.

Locus of Learning

The data are particularly rich with respect to actual and preferred locus of learning. Although some analyses have already been presented, the impact of the data for program development purposes may not yet be clear. For this reason some additional analyses have been undertaken focusing on the extent of the shift from "actual" to "preferred" within programs. Using the percentage of respondents indicating a given choice (actual and preferred) and noting the difference as a measure of extent of desired shift, tables 22 to 25 were prepared.

Table 22 summarizes the dominant perceptions of H.R.A.s relevant to the locus of initial understanding. H.R.A.s actually acquired an initial understanding of 11 competency areas in the classroom and two competency areas (F, G) during the practicum, with one competency area (J) acquired on-the-job. However, H.R.A.s indicated they would prefer to acquire an understanding of all competency areas in the classroom. In two competency areas, (F, H) they indicated a major preference to classroom learning. In five areas (A, I, K, M, P) they indicated a moderate shift to classroom learning and in six areas, (B, C, D, E, G, L) a minor shift to classroom learning.

Table 23 summarizes the dominant perceptions of H.R.A.s relevant to locus of performance. H.R.A.s actually acquired the ability to perform the competencies during the practicum component in six competency areas (B, D, E, G, L, M), on-the-job in six competency areas (C, H, I, J, K, P) and in the classroom in two competency areas (A, F). However, they indicated they would prefer to acquire the ability to perform in nine competency areas (A, B, C, D, E, G, H, I, M) during the practical component with the remaining five areas (F, J, K, L, P) on-the-job.

Taken together tables 22 and 23 reveal that, in general, H.R.A.s indicated a desired shift in emphasis towards the classroom as the locus of initial understanding, and towards the practicum as the locus of ability to perform.

TABLE 22

H.R.A. SUMMARY OF DOMINANT PERCEPTIONS RELEVANT TO LOCUS OF INITIAL UNDERSTANDING

Competency Area	Actual	Preferred	Shift
A	Cl	Cl	++
B	Cl	Cl	+
C	Cl	Cl	+
D	Cl	Cl	+
E	Cl	Cl	+
F	Pr	Cl	+++
G	Pr	Cl	+
H	Cl	Cl	+++
I	Cl	Cl	++
J	Oj	Cl	+++
K	Cl	Cl	++
L	Cl	Cl	+
M	Cl	Cl	++
P	Cl	Cl	++

KEY: Cl classroom
Pr practicum
Oj on-the-job

Shift from actual to preferred
+ minor shift (1 - 10%)
++ moderate shift (11 - 20%)
+++ major shift (21% +)

TABLE 23

H.R.A. SUMMARY OF DOMINANT PERCEPTIONS RELEVANT TO LOCUS OF PERFORMANCE

Competency Area	Actual	Preferred	Shift
A	Cl	Pr	+
B	Pr	Pr	(-)
C	Oj	Pr	+
D	Pr	Pr	+
E	Pr	Pr	(-)
F	Cl	Oj	+
G	Pr	Pr	(-)
H	Oj	Pr	+
I	Oj	Pr	+
J	Oj	Oj	(-)
K	Oj	Oj	(-)
L	Pr	Oj	+
M	Pr	Pr	++
P	Oj	Oj	(-)

KEY: Cl classroom
Pr practicum
Oj on-the-job

Shift from actual to preferred
+ minor shift (1 - 10%)
++ moderate shift (11 - 20%)
+++ major shift (21% +)
(-) preference was less than actual

Table 24 summarizes the dominant perceptions of H.R.T.s relevant to the locus of initial understanding. H.R.T.s actually acquired an initial understanding of all competency areas on-the-job. However, they indicated a shift to acquiring an understanding in the classroom in eight competency areas (C, D, E, H, I, K, L, M).

Table 25 summarizes the dominant perceptions of H.R.T.s relevant to locus of performance. H.R.T.s actually acquired the ability to perform on-the-job in all competency areas except area A where they acquired the ability during the practicum component of the training program. While they expressed a preference for on-the-job learning in all competency areas, in terms of emphasis they indicated a preference for a slight shift away from the job as the locus of learning.

Taken together tables 24 and 25 reveal that, in general, H.R.T.s indicated a desired shift in emphasis towards the classroom as the locus of initial understanding and a slight de-emphasis of on-the-job as the locus of learning for performance.

This information suggests some adjustments which could be taken within each program, independently of the other, and with no great strain on the system. In both cases more stress could be placed on classroom learning, and in the H.R.A. program the practicum could be stressed more for performance level competencies. The specific competency areas flagged for shifting could be derived from the

aforementioned tables. Furthermore, this discussion of locus of learning adds cogency to the case for a "career ladder" conceptualization of the preparation and development of health record practitioners.

TABLE 24

H.R.T. SUMMARY OF DOMINANT PERCEPTIONS RELEVANT TO LOCUS OF INITIAL UNDERSTANDING

Competency Area	Actual	Preferred	Shift
A	Oj	Oj	(-)
B	Oj	Oj	(-)
C	Oj	Cl	+
D	Oj	Cl	+
E	Oj	Cl	++
F	Oj	Oj	(-)
G	Oj	Oj	(-)
H	Oj	Cl	+
I	Oj	Cl	+
J	Oj	Oj	(-)
K	Oj	Cl	+
L	Oj	Cl	+
M	Oj	Cl	+
P	Oj	Oj	(-)

KEY: Cl classroom
Pr practicum
Oj on-the-job

Shift from actual to preferred
+ minor shift (1 - 10%)
++ moderate shift (11 - 20%)
+++ major shift (21% +)
(-) preference was less than actual

TABLE 25

H.R.T. SUMMARY OF DOMINANT PERCEPTIONS RELEVANT TO LOCUS OF PERFORMANCE

Competency Area	Actual	Preferred	Shift
A	Pr	Oj	+
B	Oj	Oj	(-)
C	Oj	Oj	(-)
D	Oj	Oj	(-)
E	Oj	Oj	(-)
F	Oj	Oj	(-)
G	Oj	Oj	(-)
H	Oj	Oj	(-)
K	Oj	Oj	(-)
L	Oj	Oj	(-)
M	Oj	Oj	(-)
P	Oj	Oj	(-)

KEY: Cl classroom
Pr practicum
Oj on-the-job

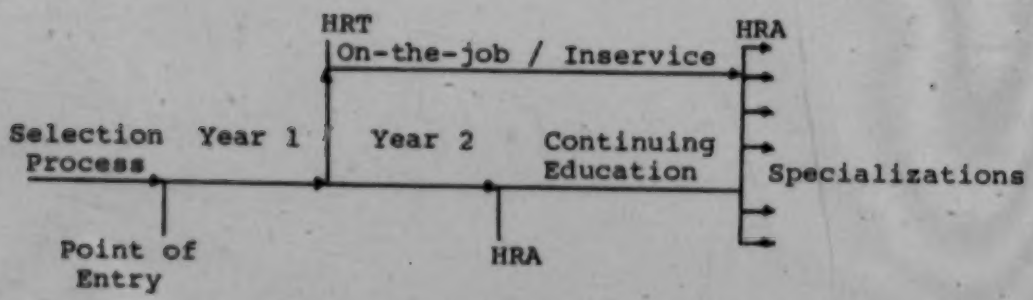
Shift from actual to preferred
+ minor shift (1 - 10%)
++ moderate shift (11 - 20%)
+++ major shift (21% +)
(-) preference was less than actual

Career Ladder

The findings of this study generally support an integration of the process of professional development of health record practitioners in two aspects: preparatory program and continuing professional development, such that continuity leading to higher levels of expertise is provided for over a significant portion of a career. Figure 1 provides a schematic representation of the process.

CAREER DEVELOPMENT OF A HEALTH RECORD PRACTITIONER

FIGURE 1



As implied in the model, all aspirants to the profession would be screened by a standard selection process. The practitioner program would have a common first year stressing initial understandings and foundational principles, presented mainly in a classroom setting. Students would have an option of stepping out at the end of the year as an H.R.T. or continuing for a second year into the H.R.A. program. Year two would stress learning at the level of application and would consist of a blend of classroom and practicum experiences. H.R.T.s would combine on-the-job training with a program of inservice education jointly planned by the training institution, professional association and employers, leading towards the H.R.A. Successful completion of a competency-based examination at year 1, year 2, and at later points, would be the basis of awarding the H.R.T. and H.R.A. diplomas, each built around the competencies validated in this study. The remaining competencies and specialized application settings, would be agendas for a variety of continuing education programs.

Summary

In this chapter significant data have been selected for explanation and commentary. Differences in perceptions held by H.R.T.s and H.R.A.s have been explained as logical outcomes of the training process. Suggestions for focusing on priority competencies have been made, and some shifts in the locus of learning proposed. Finally, a case has been developed for the integration of programs and continuing professional development in a career-long perspective.

The final chapter summarizes the research, states the conclusions reached and offers closing recommendations.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The final chapter of this thesis is divided into three sections. The first section is a summary of the research study. The second section includes conclusions derived from the study and the third and final section includes recommendations for further research.

SUMMARY

The major purpose of this research was to identify, analyze and relate to training experiences those competencies perceived to be used by H.R.A.s graduating from the N.A.I.T. program and H.R.T.s from the S.A.I.T. program. Comparisons of the responses of both groups were made to determine significant differences in perceptions of practitioners. All significant data related to each competency area identified on the research instrument were tabulated and analyzed to determine major findings. The research was conducted in three phases.

Phase I

The purpose of Phase I was to determine the competency areas and the competencies perceived to be required by H.R.A.s and by H.R.T.s. The DACUM process was used for the collection of data in this phase. A DACUM committee of 12

resource persons comprised of six H.R.T.s and six H.R.A.s identified 430 competencies in 16 competency areas.

Phase II

The purpose of Phase II was to validate the competencies and competency areas described by the DACUM committee. The population of this research was 300 health record practitioners registered with the A.H.R.A. The questionnaire listed the competency areas and the competencies identified by the DACUM committee. 160 practitioners responded giving a response rate of 53.5 percent. H.R.A.s identified 223 competencies and H.R.T.s identified 116 of those competencies. The competencies validated were predominantly from 12 of the 16 competency areas.

Phase III

The purpose of Phase III was to determine the respondent's actual and preferred locus of learning each competency area at the level of initial understanding and at the level of application. Of a total of 330 questionnaires mailed, 107 were returned. This represents an overall return of 32.4 percent. Generally, H.R.A.s and H.R.T.s did not agree upon the actual locus of understanding, however, agreed upon the classroom as being the preferred locus of understanding. Only in six competency areas did both groups

agree upon the actual and the preferred locus of learning as being on-the-job.

CONCLUSIONS

The purpose of this study was to identify, analyze and relate to training experiences those competencies perceived to be used by H.R.A.s and by H.R.T.s. In order to achieve the purpose of this study, answers were sought to several questions. The conclusions are based upon the findings derived from an analysis of data. The following summarize the major conclusions of this study.

Demographic and Professional Descriptions of Respondents

1. Approximately equal numbers of respondents graduated from the two training programs in three time periods arranged: pre 1971, 1972 - 76, and post 1976.

2. Most first positions described by function of both groups were characterized as mainly technical/clerical in nature, followed by a balance of managerial and technical/clerical.

3. With only a few exceptions, graduates of both H.R.A. and H.R.T. programs obtained their first position in hospitals.

4. Most first positions were described as Department Head positions by both H.R.A.s and H.R.T.s.

5. Most current positions were described as "Other" by both groups. The significance of this is not known, as the majority of respondents describing their position thus did not indicate the nature of their current position.

6. Most practitioners have held one position since graduation. The average number of positions held since graduation by H.R.A.s was 2.8 positions and by H.R.T.s, 2.3 positions.

Validation of Competencies

Of the 430 competencies identified by the DACUM process, 223 were identified as required by 50 percent or more of the respondents. H.R.A.s identified 223 competencies and H.R.T.s identified 116 of those competencies. The competencies validated were predominantly from 12 of the 16 competency areas. Two areas, N and O had no validated competencies.

Perceptions of Competencies by Training Program

1. Generally H.R.A.s acquired an understanding of the competency area in the classroom and preferred to acquire an understanding of all competency areas in the classroom.

2. Generally, H.R.A.s actually acquired an ability to perform the competency areas on-the-job, however, they would prefer to acquire an ability during the practicum component of the training program.

3. Generally, H.R.T.s acquired an understanding of all competency areas on-the-job. They would prefer to acquire an understanding of all competency areas in the classroom.

4. Generally, H.R.T.s actually acquired and would prefer to acquire an ability to perform the competency areas on-the-job.

Comparisons of Competencies by Training Program

1. H.R.T.s actually acquired an understanding of the competency area on-the-job, whereas H.R.A.s acquired an understanding of the competency area in the classroom.

2. H.R.A.s preferred to acquire an understanding of the competency areas in the classroom, similarly, H.R.T.s preferred to acquire an understanding of the majority of competency areas in the classroom.

3. H.R.T.s acquired the ability to perform the competencies associated with the competency area on-the-job. H.R.A.s acquired the ability to perform the majority of competencies on-the-job.

4. H.R.A.s generally preferred to acquire the ability to perform the competencies during the practicum, or on-the-job. H.R.T.s preferred to acquire the ability to perform the competencies on-the-job.

Perceptions of Training Programs

1. Generally, H.R.T.s and H.R.A.s indicated their program prepared them to cope in most or all areas of their

first job.

2. Generally, H.R.T.s and H.R.A.s rated their training program was a good basis for further technical expertise.

3. Generally, H.R.T.s and H.R.A.s rated their training program as a good basis for advancement.

RECOMMENDATIONS

The findings and conclusions of this study have implications for both health record programs, the administrators of the programs and the Canadian College of Health Record Administrators. These groups should be made aware of the findings of this research and should consider the merits of the questions raised and the results obtained. The two institutions in Alberta training health record practitioners should develop a proposal for change with respect to refocusing the programs on specific competencies, adjusting the focus of learning and program integration.

The following suggestions for further research are made.

1. The scope of this study was limited to health record practitioners employed in the Province of Alberta. It is recommended that this research be replicated using a larger population of health record practitioners consisting of those who are employed throughout North America. Such a study might use the results of this research as the data base to further describe the competencies required of health record practitioners and to identify additional factors that

were not identified in the current study. Such a study should be undertaken by the C.C.H.R.A. and the A.C.H.R.A., or commissioned to a suitable agency.

2. Since this research was limited to health record practitioners in the Province of Alberta, the methodology used in this study could be replicated involving interested physicians and hospital administrators to indicate their perceptions of health record practitioners.

3. A research investigation could be implemented as a follow-up of N.A.I.T. and S.A.I.T. graduates from the health record programs requiring respondents to identify the size of hospital employing the respondents. Such a study would undertake to determine if there are significant differences in the competencies required of practitioners in small and large hospitals.

4. This research has shown that the majority of respondents obtained their first position in a hospital, while describing their present position as "Other". A further study could be conducted to determine the reason for the apparent alteration of their career.

5. A prospective study might be conducted to determine the direction of the health record profession with respect to the increasing use of computer technology in the health care field. The results of this study could provide further direction for health record curriculum development.

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APPENDIX A

Sample DACUM Chart

NORTHERN ALBERTA INSTITUTE
OF TECHNOLOGY
11762 - 106 St.
EDMONTON, ALBERTA T5G 2R1

COMPETENCIES FOR NAIT INSTRUCTOR

A PLAN FOR LEARNING/ INSTRUCTION	PLAN LEARNING SESSIONS	PLAN LEARNING ACTIVITIES	IDENTIFY AND SELECT INSTRUCT. RESOURCE MATERIALS
B IMPLEMENT INSTRUCTION/ LEARNING PROCESS	FUNCTION IN A TEAM TEACHING MODE	PROVIDE INFORMATION VERBALLY	GUIDE STUDENT SHOP/LAB ACTIVITIES
C EVALUATE LEARNER PROGRESS	ADMINISTER TESTS/EXAMS	ASSESS SKILL LEVELS THROUGH ANALYSIS OF PRODUCT OR/AND WORK PROGRESS	DETERMINE STUDENT GRADES
D EVALUATE INSTRUCTIONAL/ LEARNING PROCESS	CONDUCT LESSON EVALUATIONS	ANALYZE PERFORMANCE TO DETERMINE NEED FOR ALTERNATIVE STRATEGIES	ANALYZE PERFORMANCE TO DETERMINE NEED FOR ADDITIONAL INFORMATION
E DEVELOP RESOURCE MATERIALS AND AIDS	SELECT APPROPRIATE PRINT MATERIALS	MAKE TRANSPARENCIES	PARAPHRASE OR RECONSTRUCT PRINTED MATERIALS
F MANAGE THE INSTRUCTIONAL/ LEARNING PROCESS	KEEP RECORDS OF STUDENT PERFORMANCE	ESTABLISH & UPHOLD A STANDARD OF ACCEPTABLE BEHAVIOR	PROVIDE FOR SAFTEY NEEDS (STUDENTS AND FACILITIES)
G PROVIDE GUIDANCE TO LEARNERS	EMPATHIZE WITH STUDENTS	MAINTAIN OPEN DOOR POLICY FOR STUDENT CONSULTATION	ASSIST STUDENTS TO DEVELOP GOOD STUDY HABITS
H MAINTAIN PROFESSIONAL & PERSONAL DEVELOPMENT	COMPLY WITH A PROFESSIONAL CODE OF ETHICS	ENCOURAGE FEEDBACK FROM PEERS RE PROFESSIONAL COMPETENCE	IDENTIFY LIMITS OF ONES PROFESSIONAL COMPETENCIES
I WORK EFFECTIVELY IN INSTITUTE ENVIRONMENT	DESCRIBE OWN INSTRUCTIONAL ASSIGNMENT	CARRY OUT BASIC FIRE PROCEDURES	CARRY OUT BASIC SAFETY PROCEDURES
J LIAISE WITH THE COMMUNITY	MAINTAIN LIAISON WITH INDUSTRY	DESCRIBE ROLE OF INSTITUTION & PROGRAMS IN THE COMMUNITY	GIVE PROGRAM PROMOTIONAL PRESENTATIONS
K PLAN DEVELOP & EVALUATE PROGRAMS	IDENTIFY & SELECT AVAILABLE RESOURCES FOR PROGRAM SUPPORT	ASSIST IN CONDUCTING AN OCCUPATIONAL ANALYSIS	DEVELOP PROGRAM OBJECTIVES
L PERFORM ADMINISTRATIVE & RELATED FUNCTIONS	COMPLETE FORMS & OTHER DOCUMENTS	MAINTAIN STUDENT RECORDS	ENROLL STUDENTS
	PROJECT PROGRAM RESOURCE NEEDS	UNDERTAKE STUDENT FOLLOW-UP STUDIES	ESTABLISH & UTILIZE ADVISORY COMMITTEES FOR OCCUPATION

SELECT TOOLS AND EQUIPMENT	PLAN AND ORGANIZE LEARNING FACILITIES	DEVELOP LEARNER PERFORMANCE OBJECTIVES	DEVELOP UNITS OF INSTRUCTION	ESTBLISH SYSTEMS FOR EVALUATION OF LEARNING
EXPLAIN & ILLUSTRATE FEATURES OF TOOLS AND EQUIPMENT	DEMONSTRATE PROCEDURES	RESPOND TO STUDENT VERBAL AND NONVERBAL CUES	MOTIVATE STUDENTS	USE ORAL QUESTIONING TECHNIQUES
INFORM LEARNERS OF RATING PROCESS	ESTABLISH CRITERIA FOR STUDENT PERFORMANCE	EVALUATE STUDENT PERFORMANCE TO CRITERIA	CONSTRUCT WRITTEN TESTS/EXAMS	ASSESS STUDENT PSYCHOMOTOR PERFORMANCE
ANALYZE PERFORMANCE TO DETERMINE NEED FOR ALTERNATIVE MEDIA	DETERMINE APPROPRIATE MODES & RATES OF LEARNING THROUGH DIAGNOSIS	EVALUATE INDIVIDUAL DIRECTED STUDY	INTERPRET LEARNER EVALUATION OF INSTRUCTION	CONDUCT COURSE AND UNIT VALIDATIONS
PREPARE INFORMATION SHEETS	PREPARE ACTIVITY SHEETS	DEVELOP MODELS/ SCHEMATICS DIAGRAMS ETC. FOR INSTRUCTION	SELECT GUEST LECTURERS	PREPARE SLIDE/FILM STRIP PRESENTAIONS
PROVIDE FOR THE FIRST AID NEEDS OF STUDENTS	PREPARE ACCIDENT REPORTS	MAINTAIN RECORDS OF COURSE PROGRESS	IDENTIFY EQUIPMENT & SUPPLIES REQUIRED	MAINTAIN FILING SYSTEMS
CONDUCT INTERVIEWS WITH STUDENTS	RECOGNIZE ASSESS AND ADVISE ON STUDENT PROBLEMS	REFER STUDENTS TO QUALIFIED RESOURCE PERSONS	SELECT AND USE APPROPRIATE STUDENT DATA COLLECTION SOURCES & TECHNIQUES	ENCOURAGE STUDENTS TO DISCUSS ASPIRATIONS
CAPITALIZE ON PERSONAL STREGTHS	MAINTAIN WORKING RELATIONSHIPS WITH ADMINISTRATORS AND INSTRUCTORS	MAINTAIN WORKING RELATIONSHIPS WITH SUPPORT STAFF	IDENTIFY & EVALUATE COMMUNICATION WEAKNESSES	EVALUATE OWN BEHAVIOR CHANGE
USE INSTRUCTIONAL SUPPORT FACILITIES AND SERVICES	LOCATE AND USE DEPARTMENTAL PROGRAM RESOURCES	OPERATE WITH CHAINS OF COMMAND	LOCATE, INTERPRET & APPLY POLICIES & PROCEDURES AFFECTING STUDENTS	REFER ENQUIRIES TO APPROPRIATE AREA
DEVELOP PROGRAM PROMOTIONAL MATERIAL FOR THE MEDIA	DEVELOP PROGRAM INFORMATION DISPLAYS & BROCHURES	INITIATE EMPLOYER/ STUDENT CONTACTS	CONTACT INDUSTRY & AGENCIES TO DETERMINE EMPLOYMENT OPPORTUNITIES	COOPERATE WITH INSTITUTIONS & IND. TO PROVIDE LEARNING/ WORKING OPPORTUNITY
EVALUATE PROGRAMS	ASSIST IN CONDUCTING STUDENT FOLLOW-UP STUDIES	ASSIST IN DEV. COLLECTION ANALYSIS & REPORTING OF SURVEY DATA	ORGANIZE & MAINTAIN AN OCCUPATIONAL ADVISORY COMMITTEE	DETERMINE OCCUPATIONAL STANDARDS OF PERFORMANCE IN EACH TASK IN OCCUPATION
IDENTIFY PROSPECTIVE STUDENTS	ESTABLISH A REPAIR & SERVICING SYSTEM FOR INSTRUCTIONAL EQUIPMENT	ESTABLISH CRITERIA & GUIDELINES FOR COOPERATIVE & WORK STUDY PROGRAM	PLACE STUDENT IN ON-THE-JOB TRAINING	SUPPLY PROGRAM DATA TO ADMIN.
PLAN FOR EXPANSION OF FACILITIES	PARTICIPATE IN PLANNING NEW PROGRAMS	COORDINATE & SUPERVISE ON-THE-JOB INSTRUCTION	INITIATE PROGRAM EVALUATION	ADMINISTER SPECIAL STUDENTS IN A PROGRAM

APPLY LEARNER CENTRED APPROACH TO INSTRUCTIONAL PLANNING	SELECT INSTRUCTIONAL/LEARNING STRATEGIES	DETERMINE LEARNER ABILITIES AND INTERESTS	DEVELOP COURSES OF INSTRUCTION	DETERMINE LEARNER INSTRUCTIONAL NEEDS ABILITIES AND INTERESTS
USE CHALKBOARDS EFFECTIVELY	USE OVERHEAD PROJECTORS	USE FILMS IN THE LEARNING PROCESS	USE FILM STRIPS AND SLIDES IN THE LEARNING PROCESS	ILLUSTRATE WITH BULLETIN BOARDS AND EXHIBITS
ASSESS STUDENT COGNITIVE PERFORMANCE	ASSESS STUDENT ATTITUDES	SELECT APPROPRIATE EVALUATION PROCEDURE	PROVIDE FEEDBACK TO LEARNER ON PROGRESS	SET UP AND MAINTAIN EVALUATION INTERVIEW SCHEDULE
EVALUATE ON-THE-JOB TRAINING				
PREPARE FILM PRESENTATIONS	DEVELOP AUDIO TAPES FOR INSTRUCTION	DEVELOP VIDEO TAPE PRESENTATIONS	PREPARE LAB MANUALS AND TEXTS	DEVELOP COMPUTER AIDED INSTRUCTIONAL MATERIALS
SCHEDULE LEARNING RESOURCES	RECOGNIZE NEEDS OF THE LEARNER	ORGANIZE SYSTEMS FOR EFFICIENT USE OF INSTRUCTIONAL MATERIALS	ENCOURAGE STUDENTS TO EXERCISE SELF DISCIPLINE	MANAGE AND MAINTAIN THE LABORATORY/SHOP
PROVIDE ORIENTATION TO STUDENT FOR FUTURE ROLE	COUNSEL STUDENTS ON CAREER & EDUCATION OPPORTUNITIES	ASSIST STUDENTS IN SEEKING EMPLOYMENT	ADMINISTER DIAGNOSTIC TESTS AND MAINTAIN RECORDS	
EMBARK ON PROFESSIONAL DEVELOPMENT PROGRAMS	MAINTAIN PROFESSIONAL CONTACTS	PLAN PERSONAL GROWTH	DEVELOP OWN PHILOSOPHY OF EDUCATION	PROJECT IMAGE OF ROLE OF INSTRUCTOR IN THE SYSTEM
IDENTIFY KEY DEPT. & INSTITUTIONAL PERSONNEL	LOCATE & DESCRIBE FACILITIES OF INST. DEPT. AND PROGRAM	DESCRIBE THE ROLE OF THE PROGRAM HEAD	DESCRIBE THE FUNCTION OF DIV. DEPT. & PROGRAM	DESCRIBE ROLE OF NAIT IN THE SYSTEM OF DEPT. OF ADVANCED ED. & MANPOWER
MAINTAIN LIAISON WITH SCHOOLS/ INSTITUTIONS	MAINTAIN LIAISON WITH PROFESSIONAL ORGANIZATIONS	MAINTAIN LIAISON WITH UNIONS	MAINTAIN LIAISON WITH GOVT./AGENCIES	
DEVELOP EDUCATIONAL OFFERINGS BY CLUSTERING-SEQUENCING RELATED TASKS	RECOMMEND LONG RANGE PLANS FOR A PROGRAM	ASSIST IN VALIDATING PROGRAMS	DEVELOP A PROGRAM OF STUDY	
SELECT AWARD CANDIDATES	CONDUCT PROGRAM ENTRY INTERVIEWS	DELEGATE ADMINISTRATIVE & CONTROL RESPONSIBILITIES	ASSEMBLE & MAINTAIN RESOURCE REFERENCE FILES	SCHEDULE STAFF
LOCATE AND ESTABLISH ON-THE-JOB TRAINING FACILITIES	PERFORM NONPROGRAM RELATED ADMIN. DUTIES			

SCHEDULE INSTRUCTION AND FACILITIES	USE EVALUATION DATA AND OTHER FEEDBACK TO ASSIST PLANNING	PROJECT INSTRUCTIONAL/LEARNING RESOURCE NEEDS	DEVELOP INDIVIDUALIZED LEARNING MODULES	PROVIDE ALTERNATE MODES OF INSTRUCTION
ASSIGN HOMEWORK	GUIDE STUDENTS IN APPLYING PROBLEM SOLVING TECHNIQUES	USE AUDIO RECORDINGS IN THE LEARNING PROCESS	LEAD GROUP DISCUSSIONS	EMPLOY REINFORCEMENT TECHNIQUES
RECOGNIZE LEARNING PROBLEMS AND PRESCRIBE SOLUTIONS	DEVISE SELF-EVALUATION TECHNIQUES FOR STUDENT USE	USE CO-OPERATIVE EVALUATION OF PERFORMANCE WITH STUDENTS	LOCATE AND APPLY SELECTED INDUSTRIAL EVALUATION SYSTEMS IN THE INSTITUTE	ASSESS LEARNER READINESS FOR ENTRY TO OCCUPATION
MAINTAIN INVENTORY SYSTEMS	ASSIST IN DEVELOPMENT & MAINTENANCE OF STUDENT ASSOC. & SOCIETIES	ASSIST IN PREPARATION OF SUPPLY ESTIMATES	COORDINATE EXAMINATIONS	COORDINATE MULTIPLE CLASSES IN A COMMON SUBJECT
ADAPT TO THE CHANGING PATTERNS NEEDS & ATTITUDES OF STUDENT POPULATIONS	ADAPT TO CHANGING PATTERNS, NEEDS & ATTITUDES OF BUSINESS & INDUSTRY	MAINTAIN COMPETENCE IN FIELD OF SPECIALIZATION	PLAN THE "STUDENT TEACHERS" LEARNING EXPERIENCES	SUPERVISE "STUDENT TEACHERS"
LOCATE INTERPRET & APPLY POLICIES & PROCEDURES AFFECTING INSTRUCTIONAL STAFF	LOCATE INTERPRET & APPLY POLICIES & PROCEDURES FOR PROGRAM ADMINISTRATION	DESCRIBE NEEDS OF INDUSTRY SERVED BY PROGRAM	LOCATE & APPLY OPERATION POLICIES & PROCEDURES OF INST., DEPT. & PROGRAM	DESCRIBE GENERAL CHARACTERISTICS OF STUDENTS IN DEPT. & PROGRAM
PLAN & ESTABLISH SERVICE (RELATED) COURSES	ESTABLISH & APPLY POLICIES FOR STUDENT ATTENDANCE & TERMINATIONS	MAINTAIN PROGRAM INVENTORY & REQUISITION EQUIPMENT SUPPLIES & MATERIALS	PLAN, ORGANIZE & ADMINISTER CON. ED. COURSES, SEMINARS ETC.	EVALUATE STAFF

DEVELOP REMOTE DELIVERY MATERIAL				
USE OPAQUE PROJECTORS	USE VIDEO RECORDINGS IN THE LEARNING PROCESS	UTILIZE GUEST LECTURES	COORDINATE STUDENT PRESENTATIONS	COORDINATE INDIVIDUAL & GROUP FIELD TRIPS
CONSTRUCT ORAL TEST/EXAMS	ASSESS INDIVIDUAL PERFORMANCE IN A GROUP	CONSTRUCT PRACTICAL TESTS/EXAMS	DEVELOP COMPUTERIZED TEST BANKS	ASSESS VALIDITY AND RELIABILITY OF EVALUATION/TEST PROCESSES
PREPARE BUDGETS AND REPORTS	ASSIST IN PREPARATION OF CAPITAL REQUIREMENTS	COORDINATE COURSES OF INSTRUCTION	COORDINATE USE OF LEARNING RESOURCES	ASSIST IN DEVELOPMENT OF LEARNING RESOURCE CENTERS
EVALUATE "STUDENT TEACHERS"				
DESCRIBE UNION POLICIES & PROCEDURES	CARRY OUT BASIC FIRST AID PROCEDURES	DESCRIBE THE MANDATE - ROLE & PHILOSOPHY OF INSTITUTE	DESCRIBE BASIC ORGANIZATIONAL STRUCTURE & ADMIN. SERVICES OF INST.	LOCATE & APPLY OPERATIONAL PROCEDURES
CONDUCT MEETINGS	ESTIMATE OPERATING COST REQUIREMENTS	RESOLVE STUDENT GRIEVANCES	RESOLVE STAFF CONFLICTS	ORGANIZE OPEN HOUSE ACTIVITIES

ADJUST INSTRUCTION FOR INDIVIDUAL DIFFERENCES	SELECT AND UTILIZE SIMULATION TECHNIQUES	MANAGE INDIVIDUALIZED INSTRUCTION	GUIDE STUDENTS IN INSTRUCTION OF OTHER STUDENTS	UTILIZE CML
SELECT STAFF	PREPARE STAFF DEVELOPMENT PROGRAMS	ESTIMATE CAPITAL COST REQUIREMENTS	PREPARE PROGRAM BUDGETS	MONITOR & BALANCE EXPENDITURES WITHIN BUDGET

APPENDIX B

Members of Health Record DACUM Committee

MEMBERS OF THE HEALTH RECORD DACUM COMMITTEE

Practitioner	Status	Hospital
Ms. Shirley Ilcisin	HRT	Director, Medical Record Department Drumheller General Hospital
Mrs. Pat Tallman	HRA	Director, Medical Record Department Calgary General Hospital
Mrs. Becky Cone	HRA (BSC)	Director, Medical Record Department Alberta Children's Provincial General Hospital
Mrs. Yvonne Melvie	HRT	Medical Record Department, Grace Hospital, Calgary
Ms. Donna Haswell	HRT	Medical Record Department, Calgary General Hospital
Ms. Debbie Schultz	HRA	Medical Record Department, Calgary General Hospital
Mrs. Eileen Belley	HRT	Director, Medical Record Department, High River General Hospital
Ms. Elsie Petrie	HRT	Medical Record Department, Colonel Belcher Hospital
Ms. Linda Gabel	HRT	Medical Record Department, Foothills Provincial General Hospital
Mrs. Sandy Gordon	HRA	Program Head, Health Record Technology, S.A.I.T.

Mrs. Terry Barr	HRA	Instructor, Health Record Technology, S.A.I.T.
Ms. Una Kolber	HRA (B.A)	Instructor, Health Record Technology, N.A.I.T.
Mr. Garry Worger		DACUM Facilitator, Program Development Officer, N.A.I.T.

APPENDIX C

Competencies and Competency Areas Identified by
DACUM Committee in Phase I and by
Health Record Practitioners in Phase II

COMPETENCY AREA: A

Perform Admission and Discharge Procedures

Competencies:	H.R.A.	H.R.T.
1. Assign unit numbers	x	x(1)
2. Make master index cards	x	x
3. Prepare daily census	x	x
4. Check for previous admissions	x	x
5. Update record of admissions	x	x
6. Prepare new patient files	x	x
7. Transfer master patient index cards to in-house files	x	x
8. Check for preadmission reports	x	x
9. Pull previous records and direct appropriately	x	x
10. Match discharged charts with discharge lists	x	x
11. Update and file in-house patient index cards in the master index	x	x
12. Combine recent discharge records with old records	x	x
13. Forward appropriate patient information as required	x	x
14. Procure information from other sources	x	x
15. Verify admission data against daily census	x	
16. Compile monthly death index	x	
17. Prepare discharge analyses		

(1)X indicates competencies used by the Health Record Practitioners in Phase II.

COMPETENCY AREA: B

File and Retrieve Records

Competencies:	H.R.A.	H.R.T.
1. Use numerical filing systems	x	x
2. Use terminal digit filing systems	x	x
3. Use manual filing equipment	x	x
4. Control record distribution	x	x
5. Apply techniques for locating misfiles	x	x
6. Locate misfiles	x	x
7. Develop record control systems	x	x
8. Apply record movement control measures	x	x
9. Use alphabetical filing systems	x	
10. Use color-coded file folders	x	
11. Monitor record control systems	x	
12. Develop index and filing systems	x	
13. Use soundex filing system		
14. Use automated filing equipment		
15. Use computerized filing equipment		

COMPETENCY AREA: C

Code Records

Competencies:	H.R.A.	H.R.T.
1. Distinguish between nomenclature and classification	x	x
2. Use I.C.D. - 9 C.M.	x	x
3. Refer to and interpret coding book indices	x	x
4. Assign services to abstracts	x	x
5. Assign physician or surgeon codes	x	x
6. Determine diagnoses from medical records	x	x
7. Determine procedures from medical records	x	x
8. Distinguish between diagnoses and symptoms	x	x
9. Distinguish between surgical and nonsurgical procedures	x	x
10. Distinguish between diagnostic and therapeutic procedures	x	x
11. Recognize and question unreasonable diagnoses and procedures	x	x
12. Determine extent of coding necessary	x	x
13. Sequence diagnoses and operations	x	x
14. Verify codes	x	x
15. Correct coding errors	x	x
16. Translate medical terminology to code numbers and letters	x	
17. Determine validity of data	x	
18. Recognize complications	x	

COMPETENCY AREA: C Continued

Competencies	H.R.A.	H.R.T.
19. Translate code numbers and letters to medical terminology	x	
20. Use SNOP		

COMPETENCY AREA: D

Abstract Records

Competencies:		H.R.A.	H.R.T.
1.	Sort abstracts	x	x
2.	Number and batch abstracts	x	x
3.	Match abstracts to control list	x	x
4.	Forward abstracts to data centre	x	x
5.	Refer to and interpret abstracting manual	x	x
6.	Refer to and interpret abstracting procedures	x	x
7.	Transfer chart information to abstract	x	x
8.	Submit supplemental data	x	x
9.	Correct abstract errors	x	x
10.	Balance abstracts against other monthly statistics	x	x
11.	Find, correct and explain audit errors	x	x
12.	Write optically scannable numbers and markings	x	
13.	Identify material to be abstracted	x	
14.	Use associated abstracting forms	x	
15.	Verify data on abstracts	x	

COMPETENCY AREA: E

Transcribe

Competencies:	H.R.A.	H.R.T.
1. File transcribed reports	x	x
2. Type	x	x
3. Transcribe narrative summary reports	x	x
4. Transcribe obstetrical reports	x	x
5. Recognize and question unreasonable dictation	x	x
6. Operate tape erasers	x	
7. Distribute reports	x	
8. Make minor editing changes	x	
9. Proofread	x	
10. Translate dictation	x	
11. Identify dictator	x	
12. Use appropriate formats	x	
13. Recognize types of reports by their contents	x	
14. Transcribe history and physical reports	x	
15. Transcribe consultation reports	x	
16. Transcribe operative reports	x	
17. Identify reports that require additional copies	x	
18. Match reports to patients	x	
19. Recognize dictating errors and recommend corrective measures	x	
20. Assess dictation-transcription systems	x	
21. Maintain productivity statistics		

COMPETENCY AREA: E Continued

Competencies:

22. Transcribe nonmedical dictation
23. Transcribe progress reports
24. Transcribe physio- and occupational therapy reports
25. Transcribe radiology reports
26. Transcribe EEG and EKG reports
27. Transcribe psychology reports
28. Transcribe medical social service reports
29. Transcribe psychiatric assessment reports
30. Transcribe speech therapy and audiology reports
31. Transcribe pathology reports
32. Transcribe autopsy reports
33. Transcribe specialty clinic reports
34. Transcribe forensic reports
35. Assess word processing systems

COMPETENCY AREA: F

Use Equipment

Competencies:	H.R.A.	H.R.T.
1. Change machine ribbons	x	x
2. Operate typewriters	x	x
3. Use and maintain copying equipment and peripherals	x	x
4. Operate pneumatic tube systems	x	
5. Operate multi-function telephones	x	
6. Operate intercoms	x	
7. Operate dictation-transcription equipment	x	
8. Operate calculators	x	
9. Operate and maintain shredders		
10. Operate automated files		
11. Operate embossers		
12. Operate and maintain microfilm readers		
13. Use and maintain liquid duplicating equipment		
14. Operate imprinters		
15. Operate and maintain diazo duplicators		
16. Operate audio-visual equipment		
17. Operate and maintain microfilm cameras		
18. Operate computer terminals		
19. Operate word processing equipment		

COMPETENCY AREA: G

Perform Incomplete Record Control Procedures

Competencies:	H.R.A.	H.R.T.
1. Assemble charts in appropriate order	x	x
2. File late reports	x	x
3. Identify incorrect data and take appropriate action	x	x
4. File or index incomplete records	x	x
5. Identify report deficiencies and take appropriate action	x	x
6. Complete deficiency slips	x	x
7. Identify persons responsible for record completion	x	x
8. Resolve discrepancies	x	x
9. Assist with record completion	x	x
10. Monitor record completion	x	x
11. Route completed records	x	x
12. Send out completion notices	x	x
13. Complete and send suspension notices to physicians	x	x
14. Notify necessary departments about suspensions and reinstatements	x	x
15. Compile appropriate assembly lists	x	x
16. Design deficiency slips		

COMPETENCY AREA: H

Perform Information Retention Techniques

Competencies:	H.R.A.	H.R.T.
1. Destroy original information	x	
2. Remove extraneous material from records	x	
3. Evaluate and select method of retention	x	
4. Microfilm documents		
5. Verify microfilmed data		
6. Jacket microfilms		
7. Prepare documents for microfilming		
8. Update inactive card files		
9. Select records to be retained		
10. Maintain a control system for hard copies of microfilmed reports		

COMPETENCY AREA: I

Prepare, Retrieve, Analyze and Use Data

Competencies:	H.R.A.	H.R.T.
1. Retrieve data for research	x	x
2. Calculate percentages	x	
3. Retrieve data from disease indices	x	
4. Retrieve data from operation indices	x	
5. Retrieve data from patient indices	x	
6. Retrieve data from physician indices	x	
7. Retrieve data from death indices	x	
8. Retrieve nonmedical data for planning and administrative purposes	x	
9. Retrieve data for audits	x	
10. Prepare monthly statistical reports	x	
11. Perform statistical calculations	x	
12. Prepare graphs	x	
13. Interpret statistical reports	x	
14. Choose appropriate statistic techniques	x	
15. Use ICD-A in all its revisions		
16. Use SNDO in all its revisions		
17. Use SNO-Med		
18. Prepare congential anomalies reports		
19. Prepare death reports		
20. Prepare neonatal death reports		
21. Prepare utilization reports		
22. Prepare birth and stillbirth reports		
23. Prepare infection control reports		

COMPETENCY AREA: I Continued

Competencies:

24. Prepare perinatal mortality committee reports
25. Prepare blood transfusion reports
26. Prepare tissue audit reports
27. prepare malignancy reports
28. Prepare poison control reports
29. Prepare allergy alert reports
30. Prepare postoperative death and complication reports
31. Prepare therapeutic abortion reports
32. Prepare departmental management reports
33. Prepare accreditation reports
34. Prepare specialty reports as required
35. Calculate mean, median and mode
36. Select and display data
37. Identify audit topics
38. Assist with selection of criteria for audit topics
39. Use computer statistics programs
40. Analyze statistical data
41. Design report forms
42. Design manual indices
43. Design computerized indices

COMPETENCY AREA: J

Train and Teach

Competencies:	H.R.A.	H.R.T.
1. Demonstrate use of equipment	x	x
2. Respond patiently	x	x
3. Demonstrate procedures	x	x
4. Answer questions	x	x
5. Allow for individual differences	x	
6. Provide continuous feedback	x	
7. Give positive reinforcement	x	
8. Explain rationale of procedures	x	
9. Update procedure manuals	x	
10. Maintain liaison with teaching institutions		
11. Present orientation programs		
12. Select and acquire teaching materials		
13. Organize practicum sessions		
14. Prepare orientation programs		
15. Analyze skills into components		
16. Evaluate overall performance		
17. Evaluate learning effectiveness		

COMPETENCY AREA: K

Communicate Effectively in Work Environment

Competencies:		H.R.A.	H.R.T.
1.	Write legibly	x	x
2.	Spell	x	x
3.	Speak English fluently and grammatically	x	x
4.	Use references	x	x
5.	Verify requests	x	x
6.	Respond to verbal directions	x	x
7.	Respond to written directions	x	x
8.	Use proper communication system techniques	x	x
9.	Accept criticism	x	x
10.	Write letters and memos	x	x
11.	Work as part of a team	x	x
12.	Use tact and diplomacy	x	x
13.	Give verbal directions	x	x
14.	Release appropriate patient information by type of request	x	x
15.	Use comprehensive medical terminology	x	x
16.	Write reports	x	x
17.	Participate in seminars and workshops	x	
18.	Analyze body language	x	
19.	Recognize and question unreasonable orders	x	
20.	Maintain liaison with other hospital departments	x	
21.	Maintain and distribute minutes of meetings	x	

COMPETENCY AREA: K Continued

Competencies:	H.R.A.	H.R.T.
22. Record and compose minutes	x	
23. Compile and maintain procedure manual	x	
24. Give constructive criticism	x	
25. Prepare agendas	x	
26. Interview	x	
27. Organize meetings or seminars		
28. Conduct meeting or seminars		
29. Obtain and update references		
30. Advise and educate medical and hospital staff on medical record functions		
31. Demonstrate department needs to administration		

COMPETENCY AREA: L

Conduct Oneself Professionally

Competencies:		H.R.A.	H.R.T.
1.	Maintain professional appearance	x	x
2.	Read, interpret and apply Medical Record Department regulations and policies	x	x
3.	Establish public relations	x	x
4.	Maintain working relations with colleagues	x	x
5.	Maintain confidentiality	x	x
6.	Deal professionally with patients	x	x
7.	Maintain composure	x	x
8.	Recognize professional limits	x	x
9.	Maintain public relations	x	x
10.	Maintain associations with professionals	x	x
11.	Demonstrate flexibility and adaptability	x	x
12.	Keep current and apply new technology and literature	x	x
13.	Cope with stress	x	x
14.	Maintain ethical standards	x	x
15.	Maintain efficient work environment	x	x
16.	Function within the Code of Practice	x	x
17.	Contribute to development of profession	x	x
18.	Maintain professional credentials	x	x
19.	Read, interpret and apply hospital policies	x	x

COMPETENCY AREA: L Continued

Competencies:	H.R.A.	H.R.T.
20. Read, interpret and apply hospital act and its regulations	x	x
21. Read, interpret and apply accreditation standards	x	x
22. Read, interpret and apply medical staff by-laws and rules and regulations	x	x
23. Participate in continuing education activities	x	
24. Read, interpret and apply other related statutes and regulations	x	
25. Persevere	x	
26. Sell other health personnel on the importance of accurate, complete patient information	x	
27. Operate within court protocols		

COMPETENCY AREA: M

Perform Admitting Functions

Competencies:	H.R.A.	H.R.T.
1. Assign patient numbers	x	
2. Document disaster victims		
3. Direct patients to destination		
4. Cope with obstreperous patients in appropriate manner		
5. Transport patient appropriately for his/her condition		
6. Escort patients to appropriate area		
7. Prepare record, including patient information received on booking and stamp forms		
8. Forward record to appropriate area		
9. Compile admission forms		
10. Edit patient information		
11. Prepare addressograph plage		
12. Prepare identification bracelets and attach to patients		
13. Interview outpatients and document admission forms		
14. Apply interpersonal skills		
15. Notify patients of admission dates		
16. Perform basic patient triage		
17. Prepare receipts for fees received		
18. Notify physicians of their patients' admission dates		
19. Collect admission fees		
20. Collect nonresident fees		
21. Collect outpatient fees		

COMPETENCY AREA: M Continued

Competencies:

22. Collect room fees
23. Perform preadmission procedures
24. Interview and document emergency patients
25. Distribute appropriate list to hospital departments
26. Verify admission information
27. Interview inpatients and document admission information
28. Obtain treatment consents
29. Obtain admission consents
30. Distribute admission forms
31. Prepare admission lists, discharge lists and inpatient lists
32. Prepare census
33. Verify census
34. Provide data on patients for pastoral care
35. Obtain admitting diagnoses
36. Update inpatient census re admission, discharges, transfers and deaths
37. Follow-up on "no shows"
38. Cancel patients
39. Release bodies
40. Obtain autopsy consents
41. Comply with admission, discharge and transfer policies procedures
42. Comply with various provincial medical insurance regulations
43. Enforce suspension procedures
44. Liaise with nursing administration

COMPETENCY AREA: M Continued

Competencies:

45. Prepare waiting lists
46. Maintain other statistics
47. Maintain number control log
48. Identify confidential admissions
49. Book outpatient tests and clinics
50. Obtain operative booking information
51. Postpone patients
52. Maintain waiting list statistics
53. Book operative procedures
54. Obtain appropriate booking information
55. Assign beds
56. Control beds by age, diagnosis, sex, etc.
57. Assign booking priorities
58. Maintain bed map
59. Monitor occupancy
60. Institute procedures in the event of a "no bed" situation
61. Write transfer policies
62. Write discharge policies and procedures
63. Design and implement admitting systems
64. Write admitting policies and procedures
65. Liaise with paramedics and police
66. Perform other related duties as required

COMPENCY AREA: N

Maintain and Manage Medical Library

Competencies:

1. Process periodicals for binding
2. Dispose of out-dated material
3. Use hospital literature index
4. Use Index Medicus
5. Use interlibrary loan systems
6. Search out literature to attach to charts (LATCH)
7. Maintain card catalogue
8. Prepare card catalogue
9. Organize aduio-visual resources
10. Organize, code and file medical slides
11. Select new material
12. Order new material
13. Process new material
14. Organize a Library system

COMPETENCY AREA: O

Maintain Medical Staff Organization Records

Competencies

1. Update medical staff organization lists
2. Compile medical staff and privilege lists
3. Maintain medical staff credential files
4. Assist in organization of medical staff committee meetings
5. Organize medical staff "rounds"
6. Organize, notify and monitor attendance--Physicians' continuing education courses
7. Organize clinicopathological conference

COMPETENCY AREA: P

Perform Supervisory and/or Management Skills

Competencies:		H.R.A.	H.R.T.
1.	Use common sense	x	x
2.	Complete forms	x	x
3.	Participate in interdepartmental meetings	x	
4.	Manage time	x	
5.	Order materials and supplies	x	
6.	Evaluate productivity	x	
7.	Choose appropriate department materials and supplies	x	
8.	Write job descriptions	x	
9.	Justify classificaiton of employees	x	
10.	Control confidentiality of reports and reporting	x	
11.	Recognize and deal with personnel problems	x	
12.	Assign tasks	x	
13.	Discipline staff	x	
14.	Interview and select staff	x	
15.	Evaluate personnel	x	
16.	Encourage subordinate participation in decision-making	x	
17.	Anticipate problems	x	
18.	Evaluate work flow	x	
19.	Accept responsibility	x	
20.	Solve problems	x	

COMPETENCY AREA: P Continued

Competencies:	H.R.A.	H.R.T.
21. Set objectives	x	
22. Make decisions	x	
23. Delegate authority	x	
24. Set priorities	x	
25. Design forms	x	
26. Motivate	x	
27. Recognize need to discontinue obsolete methods	x	
28. Read, interpret and apply personnel policies	x	
29. Read, interpret and apply union agreements	x	
30. Implement and follow-up systems and procedures	x	
31. Evaluate and select dictation-transcription systems	x	
32. Evaluate and select filing and retrieval systems	x	
33. Enforce accreditation standards	x	
34. Enforce Hospital Act and its regulations	x	
35. Enforce other related statutes and regulations	x	
36. Enforce hospital policies	x	
37. Enforce file procedures	x	
38. Enforce Medical Record Department regulations and policies	x	
39. Co-ordinate departmental activities	x	
40. Make up time schedules		

COMPETENCY AREA: P Continued

Competencies:

41. Compile payrolls
42. Conduct supplies and equipment invetory
43. Represent department at medical staff and hospital committee meetings
44. Classify employees
45. Train personnel to carry out disaster plans
46. Maintain personnel records
47. Recruit personnel
48. Counsel personnel
49. Terminate staff
50. Plan and budget for continuing education for staff
51. Develop operating budgets
52. Follow budgets
53. Develop new program budgets
54. Develop capital equipment budgets
55. Analyze budgets
56. Develop staff and salary budgets
57. Plan and implement inservice programs
58. Evaluate and select record retention systems
59. Plan and implement education programs for allied health professionals
60. Evaluate and select patient identification systems
61. Evaluate and select office furniture
62. Evaluate and select duplicating systems
63. Enforce safety procedures
64. Enforce medical staff by-laws, rules and regulations

COMPETENCY AREA: P Continued

Competencies

65. Enforce compliance with appropriate regulations and legislation

66. Advise on compliance with appropriate regulations and legislation

67. Change systems and procedures

68. Develop disaster plans

69. Co-ordinate information system activities

70. Utilize space planning techniques

71. Develop and implement information systems

72. Create a productive working environment

73. Design evaluation studies

74. Apply system analysis techniques

75. Negotiate

76. Write policies

77. Design computerized information systems

78. Plan and design facilities

APPENDIX D

Phase III Questionnaire

PART A: Please circle the appropriate response

1. Where were you trained?

a.	Graduate of N.A.I.T. Health Record Administration Program	yes	1
		no	2
		year	_____
b.	Graduate of S.A.I.T. Health Record Technician Program	yes	1
		no	2
		year	_____
c.	Graduate of other Health Record Program (specify)	yes	1
		no	2
		year	_____

2. Please describe your first position as a Health Record Practitioner after graduation. (check one response for each question)

a.	Institutional setting:	
	Hospital	1
	Community Health Care Unit	2
	Private Clinic	3
	Industrial unit	4
	Training institution	5
b.	Role/position	
	Mainly technical/clerical	1
	Mainly managerial/supervisory	2
	Balance of the two	3
	Other	4
	Specify _____	
c.	Title of position:	
	Department Head	1
	Assistant Department Head	2
	Supervisor	3
	Staff practitioner	4
	Instructor	5
	Other	6
	Specify _____	

3. Please describe the title of your current position, if different from above.

Department Head	1
Assistant Department Head	2
Supervisor	3
Staff practitioner	4
Instructor	5
Other	6
Specify _____	

4. How many positions have you held since graduation? _____

INSTRUCTIONS FOR COMPLETION OF PART B:

With reference to your first position after graduation, please respond to the following questions by placing a check mark (✓) in the box under the appropriate heading. The competency areas are taken from the DACUM classification of competencies used in the previous questionnaire. Some examples of competencies from each competency area are given below to refresh your memory.

COMPETENCY AREA	COMPETENCIES
1. PERFORM ADMISSION AND DISCHARGE PROCEDURES	- assign unit numbers - make master index cards
2. FILE AND RETRIEVE RECORDS	- use numerical filing systems - use terminal digit filing systems
3. CODE RECORDS	- distinguish between nomenclature and classification - use ICD - 9 - CM
4. ABSTRACT RECORDS	- sort abstracts - number and batch abstracts
5. TRANSCRIBE	- type - transcribe narrative summary reports
6. USE EQUIPMENT	- change machine ribbons - operate typewriters
7. PERFORM INCOMPLETE RECORD CONTROL PROCEDURES	- assemble charts in appropriate order - file late reports
8. PERFORM INFORMATION RETENTION TECHNIQUES	- remove extraneous material from records - evaluate and select method of retention
9. PREPARE, RETRIEVE, ANALYZE AND USE DATA	- retrieve data for research - calculate percentages
10. TRAIN AND TEACH	- demonstrate procedures - answer questions
11. COMMUNICATE EFFECTIVELY IN WORK ENVIRONMENT	- write legibly - speak English fluently and grammatically
12. CONDUCT ONESELF PROFESSIONALLY	- maintain professional appearance - read, interpret and apply medical record department regulations and policies
13. PERFORM ADMITTING FUNCTIONS	- assign patient numbers
14. PERFORM SUPERVISORY AND/OR MANAGEMENT SKILLS	- participate in interdepartmental meetings - evaluate productivity

COMPETENCY AREA: 1. PERFORM ADMISSION AND DISCHARGE PROCEDURES

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 2. FILE AND RETRIEVE RECORDS

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 3. CODE RECORDS

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 4. ABSTRACT RECORDS

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 5. TRANSCRIBE

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 6. USE EQUIPMENT

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 7. PERFORM INCOMPLETE RECORD CONTROL PROCEDURES

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 8. PERFORM INFORMATION RETENTION TECHNIQUES

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 9. PREPARE, RETRIEVE, ANALYZE AND USE DATA

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 10. TRAIN AND TEACH

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 11. COMMUNICATE EFFECTIVELY IN WORK ENVIRONMENT

Where did you acquire an:	Training Program		On-the-Job	Elsewhere	Never acquired it
	classroom	practicum			
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 12. CONDUCT ONESELF PROFESSIONALLY

Where did you acquire an:	Training Program		On-the-Job	Elsewhere	Never acquired it
	classroom	practicum			
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 13. PERFORM ADMITTING FUNCTIONS

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

COMPETENCY AREA: 14. PERFORM SUPERVISORY AND/OR MANAGEMENT SKILLS

Where did you acquire an:	Training Program: classroom	Training Program: practicum	On-the-Job	Elsewhere	Never acquired it
a. initial understanding of the competency area?	1	2	3	4	5
b. ability to perform independently the activities associated with the competency area?	1	2	3	4	5

Where is the most effective locus of learning each competency area? (as you would have preferred it)				
c. for acquiring an initial understanding of the competency area?	1	2	3	4
d. for acquiring the ability to perform independently the activities associated with the competency area?	1	2	3	4

INSTRUCTIONS

For the following questions please circle the one most appropriate response

PART C:

1. Please indicate to what extent your training program prepared you generally, for your first job in the field.

I was able to cope in all aspects of the job	1
I was able to cope in most areas	2
I was able to cope in only a few areas	3
I was able to cope in no areas	4

2. Please indicate to what extent your training program provided a basis for the development of further technical expertise.

An excellent basis	1
A good basis	2
A limited basis	3
No basis	4

3. Please indicate to what extent your training program provided a basis for advancement to a more responsible position.

An excellent basis	1
A good basis	2
A limited basis	3
No basis	4

PART D:

Please outline briefly any thoughts for improving the preparation process for Health Record Practitioners.